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XERODERMA PIGMENTOSUM*

F. RONCHESE, M.D.

The Author. *Francesco Ronchese, M.D., Dermatologist-in-chief, Rhode Island Hospital; Instructor in Dermatology, Boston University School of Medicine.*

In 1870, Kaposi gave the name *xeroderma pigmentosum* to a rare disease of the skin which appears in infancy or childhood in one or more members of the same family, whose parents are often related. The condition is so peculiar that about 460 cases have been reported in the world literature, according to Macklin.[1]

The dermatosis is located on those parts of the body which are exposed to light (face, neck, arms, legs). It begins with the appearance of freckle-like spots, which become increasingly pigmented, until some are as black as ink. The exposed parts of the skin and mucous membranes (lips and eyelids) become dry and scaly, with telangectases and keratoses, similar clinically to those seen in roentgen ray dermatitis.

The occurrence of this pathology in an infant or juvenile face, gives it the appearance of premature senility[2] similar to that seen in the skin of the aged, the farmer, fisherman or sailor, who have been exposed to the direct action of the sun's rays, for the greater part of their lives.

Xeroderma pigmentosum is a photosensitization dermatosis, the affected person being sensitive to the radiations of the sun and particularly to the ultraviolet rays. Investigators have experimentally exposed small areas of apparently normal skin, in patients with xeroderma pigmentosum, to roentgen and ultraviolet rays, and have proved this hypersensitivity, which has manifested itself by an exaggerated inflammatory reaction and, secondarily, with hyperpigmentation.[3]

The keratoses progress to epitheliomas, of the squamous, basal or mixed type, as in the sailor, the fisherman or the aged. When cutaneous carcinomas develop, usually, the life expectancy is short. Within 5 or 6 years the patient dies of generalized carcinomatosis.

Case Report

"A 25 year old, single, white woman, of Italian ancestry, living on a farm, was seen in my office on May 7, 1943 and later in the department of Dermatology and in the Tumor Clinic of the Rhode Island Hospital. She was the oldest of 9 children, all apparently well. There was no known incident of the disease in the parents, relatives or ancestors. The parents were third cousins. The patient's condition became progressively worse during the past 10 years, and she decided to seek medical care after a large keratose on her face became ulcerated and a tumor 5 by 2 inches developed under the skin of her left leg. An important factor in her past history was that a physician administered ultraviolet air cooled therapy for a period of 6 years. With this exception, no other medical attention was given, until the keratose on the face became ulcerated, and the large tumor developed on the leg. A general physical examination was negative. Blood and urine were normal. A psychometric test showed a fair general level of intelligence.

As in all cases of xeroderma pigmentosum the patient showed a severe cheilitis and conjunctivitis. However, while the lower eyelids were severely involved with almost total loss of eyelashes, the upper eyelids were of normal texture and with normal eyelashes. On the exposed parts (face, neck, chest, shoulders, arms, lower legs) there were areas of hyperpigmentation varying in size from the head of a pin to a quarter, of all shades from light brown, sepia, deep brown to ink-black. Interspersed

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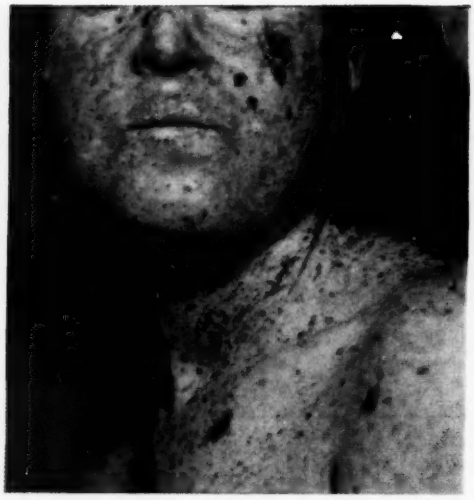
* Read at the Meeting of the New England Cancer Society, at Providence, R. I., November 6, 1946.



Typical clinical features of xeroderma pigmentosum. Marked senile dryness of facial skin and mucous membranes. Telangectases, spots of hyperpigmentation of various sizes and shades from light brown to ink black, keratoses, multiple basal cell epitheliomas. At right, low power mycrophotograph of ulcerated basal cell epithelioma of the cheek.

among these were telangectases, keratoses and pinhead or pea-sized, pearly, basal cell epitheliomas. On her left zygomatic region there was an ulcerated basal cell epithelioma (rodent ulcer) the size of a quarter. All over the face, neck, chest, shoulders and lower legs were scattered pearly, nodular, pea-sized tumors with telangectases, all having the same clinical appearance of pigmented basal cell epitheliomas.

The ulcerated tumor of the left zygomatic region proved pathologically to be a basal cell epithelioma and was treated with radon implants with perfect result. The tumor of the leg as well as many others, removed from the skin of the legs and arms, proved to be malignant melanomas. Some were removed surgically, others were coagulated with high frequency current. All areas treated healed up perfectly with no evidence of recurrence up to this date. A large number of very small lesions about the face were coagulated under intravenous anesthesia with satisfactory result. The last time the patient was seen she was gaining weight, was gay, busy and completely unconcerned about the appearance of her skin and her uncertain future. In fact she was engaged and planning to get married.

However, although the treated areas showed no sign of recurrence, many new growths had developed, some black and crusty, some fungating and pedunculated."

Comment

While many dermatological conditions are the object of endless discussion before agreement is reached, if it is reached at all on the diagnosis, fully developed xeroderma pigmentosum offers no diagnostic difficulties. Only at the very beginning the infantile lesions may be called freckles and the very mild adult cases, dry skin. Very early, the infantile skin becomes prematurely mature, and later, prematurely senile[2] and the diagnosis of xeroderma pigmentosum is no more questionable.

The correct diagnosis, however, is not so obvious outside the dermatological field. The student goes out of medical school with a vague idea of it from the text books and some lecture and quickly forgets it. The case confirms this point. While it is known that lupus erythematosus, hydroa vacciniformis, xeroderma pigmentosum are definitely due to a peculiar sensitivity to the ultra violet part of the solar spectrum, this patient received ultra violet air cooled therapy for six years.

Another interesting feature of this case is the demonstration of the curability of basal cell epitheliomas by curettage and high frequency coagulation or dessication, without radiation or surgery, if properly, which means thoroughly, done. This is no novelty, of course. Many series of cases have been reported in which this point was demonstrated.

At the meeting of the American Academy of dermatology, in Cleveland, December 1946, Guequierre showed a long series of cases of various sized basal cell epitheliomas observed for 5 or more years, cured by high frequency coagulation and no radiations or surgery.

In the present case the face, and particularly the

eyelids and lips, were all covered with pin-head to pea-sized basal cell epitheliomas. Surgery could not be used and radiations were to be avoided, if possible. All were treated by high frequency coagulation under intravenous anesthesia and all healed up nicely with no sign of recurrence to date.

Summary

Cases of xeroderma pigmentosum are rare and always interesting. A peculiarity in this one is the tolerance of this intelligent young woman to such an extensive facial disfigurement.

In spite of a large number of epitheliomas and malignant melanomas, the therapeutic result has been very good. All lesions have healed promptly without unsightly scars and with no evidence of metastasis up to the present time.

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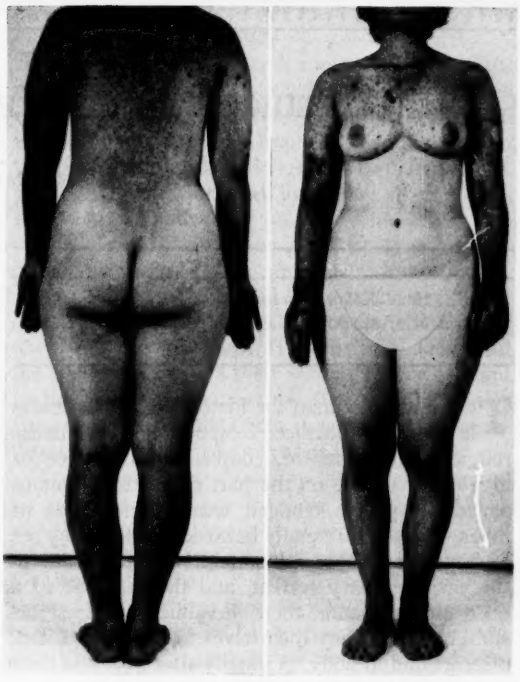

The characteristic distribution of the dermatosis with no lesions on the so-called bathing suit area.

Notice the very good feminine body build and the good result of the surgical removal of the malignant melanoma from the left lower leg.

Malignant melanoma of left leg surgically removed

VA MENTAL HYGIENE CLINIC

In the March issue of the JOURNAL the statement was made that the U. S. Veterans Administration Mental Hygiene Clinic at the old Hope high school building in Provdence would hold staff conferences, open to professional visitors, on Tuesday mornings. The new schedule since announced calls for these conferences on Thursday mornings from 8:15 a. m. to 9 a. m.

MEDICINE IN THE TIME OF THE CRUSADES

ROLAND HAMMOND, M.D.

The Author. *Roland Hammond, M.D., of Providence. President of the Rhode Island Medical Society, 1935-36.*

To the average man the history of the Crusades is a thrillng romance. Responding to an intense religious emotionalism, coupled with avarice or love of adventure on the part of some, enormous surges of people trudged wearily thousands of miles, or made an equally hazardous journey by sea to achieve an impossible ambition. Then followed the equally weary retreat, and the remnant of a once proud band, their heraldic emblems besmirched, and they themselves impoverished, sick at heart and in body, gradually sifted back to their home towns.

But it had been a great experience—the first Cook's tour. Many of the peasant class had never before journeyed beyond the confines of their birthplace. For the first time in their lives most of these thousands of people, men and women, had tasted the delights of travel. Many of them had never before experienced a hot climate. They tasted strange and delicious food, especially fruits and spices; they were impressed by an older, more stabilized and more leisurely civilization. They were ill, and consulted the physicians of the Arabian school, who administered an entirely different, and it is to be hoped a more agreeable form of treatment, than that to which they had been accustomed in Western Europe.

Many of us, as boys, had our first glimpse of the history of the Crusades, when our imaginations were fired by reading Sir Walter Scott's *Talisman.* Clearly outlined in my memory, as I am sure it is in your own, is the description of the illness of King Richard the Lion Hearted, which had baffled the English leeches, but which readily yielded to a potent sleeping draught administered by the Arabian physician, El Hakim, who later revealed himself as Saladin, Richard's arch enemy, but a gallant soldier and a courteous gentleman.

Such was the conception a hundred years ago of the supposedly vast changes wrought in Western European civilization by its contact with the peoples of the Eastern Mediterranean during the Crusades. Unfortunately the modern historian attaches very little value to the Crusades as a factor in promoting intellectual or spiritual uplift. They were only one phase, and that not the most important, of the life of a vigorous epoch. They brought East and West into closer contact, stimulated trade, transportation and the use of money, and helped to accelerate many tendencies already at work, but their specifically intellectual consequences are less tangible and probably less significant.

The former conception of the Dark Ages as a period in which learning stood still, must be given up. Progress was constant and encouraging. In the early middle ages we see the formation of nations, the beginnings of our common law, the development of monastic life and the building of cathedrals, and the evolution of national languages, particularly English. The later middle ages are notable for the perfection of Gothic architecture, the establishment of large universities and hospitals and the growth of art.

The mediaeval period is characterized by several minor revivals of learning—the Carolingian Renaissance of the ninth century, the Ottonian Renaissance, neither of which helped to advance the science of Medicine, the Mediaeval Renaissance of the Twelfth Century, and culminating in the Thirteenth Century, which Dr. James J. Walsh considers the greatest of centuries. The revival of the Twelfth Century was devoted to philosophy and science, while the Italian Renaissance was distinctly a literary revival.

The period of the Crusades is generally considered to embrace the years from 1096 to 1272. In considering the status of medicine during this epoch we must note the progress of the science during the twelfth and thirteenth centuries.

During the earlier centuries of the middle ages, science and learning sought refuge in the bosom of the church and there grew up a period of monastic medicine characterized by a cult of faith healing or theurgic therapy, an implicit belief in the miraculous healing power of the Saints and of holy relics. Supernatural aid came to be more and more esteemed as the medical art showed itself to be helpless particularly in the time of the great epidemics. But the church soon saw the error of its ways when the clerics were devoting their time to medical prac-

tice and seeking fees, which should have been employed in strictly religious duties and placed a ban on the treatment of the sick by the clergy or monastic orders. These edicts were aimed not so much at medicine as at its malpractice by monks.

The time was now ripe for the intellectual revival of the twelfth century. At no point is it more marked than in the domain of science. The important fact for our purpose is that by the eleventh century Salerno had become the chief medical centre with the earliest medical school in modern Europe. It had become a seat of the healing art in the tenth century and by the eleventh century its school was well established. By the twelfth century Salerno had a medical literature of its own. This was primarily a literature in Latin, for in this century the common language of Western Europe was Latin. The twelfth century saw the full recovery of the medical literature of the Greeks and the translation of the more important works of the Arab physicians. Greek medicine, it is true, had never wholly disappeared from the South of Italy, where Cassidorus had created his library in the sixth century, and where certain Latin versions of Greek medical writers can be traced in Beneventan* copies as early as the tenth century—a meagre tradition but apparently enough to start the medical school of Salerno. Just when or how this centre of learning came into being no one knows, except for the fact that in the South of Italy the ancient tradition was most alive, and here far into the middle ages Greek was understood. The versions of Constantine the African, who was known as "that new and shining Hippocrates", developed though they did not start, the activity in the school.

The Salernitan masters dealt with many matters in medicine and surgery, as can be seen in their recently published works. Although like the Arabs, they avoided dissection of the human body, they have left a treatise on the anatomy of the pig, whose body in many characteristics most nearly resembles the human. Their writings on pharmacology and diseases of the eye were widely used. In general they emphasized bathing and diet—the baths of Salerno and other warm springs of the region were famous even in verse—and simple, sensible remedies. Their therapy was later popularized in a poem of 362 lines, the *Regimen Sanitatis Salernitanum*, some of whose maxims are still in circulation: viz: "After breakfast walk a mile, after dinner rest a while", etc. A more adequate statement of the early teaching of Salerno appears in the various versified treatises of Gilles de Corbeil, who came from the schools of Salerno and Montpellier to Paris to be physician to Philip Augustus and possibly to exercise some influence on medical teaching in the university.

While the revival of medicine in the West and the reestablishment of the medical profession proceed in the first instance from early Salerno, further advance in medical science required the full assimilation of the medical knowledge of the ancient world, particularly the works of the father of medicine, Hippocrates, and those of his voluminous successor, Galen. Something of their teaching had come from the Arabic through Constantine of Africa, whose versions still make up the larger part of the twenty-six treatises composing the medical library of the Bishop of Hildesheim in 1161; but the great majority of their writings were brought to the West in the later twelfth century, partly from the Greek by the Pisan Burgundio, but chiefly through the Arabic of Gerard of Cremona.

These were supplemented by Arabic commentaries and adbridgements like those of Ali-ben-Abbas and the Jew Isaac, some of which were translated into German before 1200, and towards the close of the century by the *Canon* of *Avicenna*, which remained until our own time the standard cyclopaedia of medicine for the Mohammedan world. We have here substantially the body of mediaeval medicine, from which the university curriculum usually selected for concentrated study the *Aphorisms* of Hippocrates, the *Tegni* of Galen, the *Pantegni* of Ali-ben-Abbas, the works of Isaac the Jew, and, later, Avicenna,—the Arabian Galen. Fundamentally Greek, it had been enriched by much fruitful observation of diseases and their medicines among the Arabs.

Unfortunately, the scholastic habit of mind and the mediaeval reverence for the written word put these texts into a position of absolute authority, to be expounded and interpreted literally and dogmatically rather than experimentally in laboratories or clinics, after our modern fashion, so that medical science advanced very slowly in the period which immediately followed. In the middle ages it was considered that the proper method of arriving at sound knowledge was to argue the question, and never attempt to reach a conclusion by experiment. From the class rooms of the fourteenth century as they are depicted on the Bolognese monuments with the textbook lying open before master and student, it is a long way to Rembrandt's "Lesson in Anatomy".

On account of their rarity the gift of books to a mediaeval universty was equivalent to the bequest of a large fortune in our day. In the fourteenth century there were only nine medical books in the University of Paris.

Nevertheless, dogmatic and academic as was the study of medicine in the mediaeval university, some progress seems to have been made toward a saner

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* *Beneventan was a peculiar Southern Italian hand found chiefly in the library of the Monastery of Monte Cassino.*

practice of the art. In the early middle ages there was no professional class of physicians as we understand the term, for the usual practice consisted in the domestic applications of incantations, charms and old wives' remedies of every sort.

Now if the school of Salerno was not wholly scientific in the modern sense, its treatment was at least simple and sensible, while the Arabs showed much skill in the actual healing of diseases and their practice gradually spread with the growth of the medical profession. Moreover, Jewish and Arab physicians were in great favor when they could be had; Henry I of England is said to have employed a converted Jew, Petrus Alphonsi, as well as a Christian named Grimbald, while in Spain the life of the Catholic princes was intrusted to the skill of the Saracens. The contrast between oriental skill and the old Christian superstition is instructively brought out in the narrative of a Syrian physician, Thabit, preserved in the memoirs of Usama:

They brought me a knight with an abscess in his leg, and a woman troubled with fever. I applied to the knight a little cataplasm; his abscess opened and took a favorable turn. As for the woman I forbade her to eat certain foods and I lowered her temperature. I was there when a Frankish doctor arrived, who said, "This man can't cure them!" Then, addressing the knight, he asked, "Which do you prefer, to live with a single leg, or to die with both of your legs;" "I prefer," replied the knight, "to live with a single leg." "Then bring," said the doctor, "a strong knight with a sharp axe." The knight and the axe were not slow in coming. I was present. The doctor stretched the leg of the patient on a block of wood, and then said to the knight, "Cut his leg off with the axe, detach it with a single blow." "Under my eyes, the knight gave a violent blow, but it did not cut the leg off. He gave the unfortunate man a second blow, which caused the marrow to flow from the bone, and the patient died immediately.

As for the woman, the doctor examined her and said. "She is a woman with a devil in her head, by which she is possessed. Shave her hair." They did so, and she began to eat again, like her compatriots, garlic and mustard. Her fever grew worse. The doctor then said, "The devil has gone into her head." Seizing the razor he cut into her head in the form of a cross and excoriated the skin in the middle so deeply that the bones were uncovered. Then he rubbed her head with salt. The woman, in her turn, expired immediately. After asking them if my services were still needed, and after receiving a negative answer, I returned, having learned from their medicine matters of which I had previously been ignorant.

Occasionally one finds a startling bit of anticipation of what is most modern in medicine as well as in surgery. Toward the end of the thirteenth century, Gilbert the Englishman, teaching at Montpellier, insisted that the rooms of patients suffering from smallpox should be hung entirely with red curtains since it caused the disease to run a lighter course, with lessened mortality and with less disfigurement. At the end of the nineteenth century, Finsen demonstrated that the admission of only red light to the rooms of smallpox paients modified the disease, shortening its course, often prevented secondary fever, and almost completely did away with disfigurement.

A startling illustration of the neglect of surgery is to be found in the late appearance of artificial limbs, which were known to Herodotus and Pliny. On the other hand spectacles were known and used in the later middle ages.

The school of Salerno was soon followed by others at Montpellier, Padua and Bologna. In medicine, Italy indeed led the world. The improvement of the medical profession was further aided by the rise and growth of the great mediaeval universities in the twelfth and thirteenth centuries. These institutions attracted students often times to the number of ten to thirty thousand each. The earliest universities were established in Paris, Bologna, Oxford, Montpellier and Valencia, and in Italy at Padua, Messina and Naples. Roger II of Sicily, helped to raise the standard of medical education by forbidding anyone to practice medicine without proper examination, and his grandson, the generous and liberal minded Hohenstauffen Emperor, Frederick II, issued an edict requiring a candidate for license to practise to be examined in public by the Masters of Salerno. The candidate must have studied logic for three years, medicine and surgery for five years, and have practised for one year under some experienced physician. He insisted that surgery should occupy as long a course of study as medicine and should be founded on anatomy "without which no operator can be successful". For that age, it would be difficult to improve upon the plain scope and intention of this law. Frederick's edict did much to improve the status of the respectable physician and correspondingly to diminish the number of quacks.

The principal outcome of the School of Salerno was the work of two surgeons, bearing romantic names, Roger of Palermo, and Roland of Parma, whose writings were independent of Arabist sources. Roger's work became a standard textbook at Salerno, where he was a teacher. He recognized cancer and possibly syphilis, prescribed ashes of seaweed (iodides) in goitre, mercurial salves in chronic dermal affections, introduced the seton and suture of the intestines over a hollow tube, taught the use of styptics, sutures and ligatures in hemorrhage and the healing of wounds by second intention (laudable pus). Teodorico Borgognoni, Bishop of Cervia, disputed this doctrine. "It is not necessary," he says, "for pus to be generated in wounds". This simple statement makes Theodoric one of the most original surgeons of all time, for only Mondeville, Paracelsus and Lister upheld these principles after him. At this period that mediaeval substitute for anesthesia, the spongia somnifera, was introduced. The sponge was steeped in a mixture of opium, hyoscyamus, mul-

berry juice, lettuce, hemlock, mandragora, and ivy, dried and when moistened, inhaled by the patient, who was subsequently awakened by applying fennel juice to the nostrils.

The ablest Italian surgeon of the thirteenth century was Saliceto, educated in hospital and on battlefield, professor of Bologna and author of a Surgery in which surgical diagnosis and internal medicine were not separated, as was the common practise and the crying evil, as well, of this age. His pupil, Lanfranchi, became the founder of French surgery. His work on brain injuries and fracture of the skull is considered a classic. Lanfranchi's contemporary and loyal follower, Henri de Mondeville, was a hardy and original thinker who made a valiant plea for the principle of avoiding suppuration by simple cleanliness as originally taught by Hippocrates. His writings are rich in mother wit and biting sarcasm as illustrated by some of his sayings: "God did not exhaust all His creative power in making Galen". "Many more surgeons know how to cause suppuration than to heal a wound." "Never dine with a patient who is in your debt, but get your dinner at an inn. Otherwise he will deduct his hospitality from your fee". As Allbutt says, "It is hard to say when Henry is serious, when ironical and when mediaeval". The best known of the English medical men of this period were Bernard de Gordon, a teacher at Montpellier, Gilbertus Anglicus, and John of Gaddesden, supposed to be the original of Chaucer's Doctor of Physic. Guy de Chauliac, sometimes called the father of surgery, lived later than the scope of this paper. A few of the Popes were physicians, notably John XXI, sometimes called the ophthalmic Pope, because of his noteworthy writings on diseases of the eye.

Towards the end of the thirteenth century Mundinus of Bologna, revived interest in human dissecting, and his *Anathomia,* really a little hornbook of dissecting, was the sole textbook on anatomy for over a hundred years in all the mediaeval schools. In regard to the bull, *De Sepulturis,* issued by Pope Boniface VIII in 1300, which many supposed to have put a damper on anatomic research, it is shown by Neuberger and Walsh that it was, in intention at least, a simple mandate to prevent the bodies of dead crusaders from being boiled and dismembered, before returnng them to their relatives.

In this century internal medicine was essentially scholastic and monastic, that is, its votaries were either monks or schoolmen of the type of the foremost intellectual leaders,—Roger Bacon, Thomas Aquinas, Duns Scotus and Albertus Magnus. These writers were Arabists because of their unswerving fidelity to Galenic dogma as transmuted through Mohammedan sources. Peter of Abano attempted to reconcile the views of the Arabists and the Grecians, and the school of Padua was established as a center of medical dialetics. The school of Montpellier attracted the most prominent of the Arabists such as the alchemist, Raymond Lully, and Arnold of Villanova.

The regulation and restriction of medical practice began soon after the Christian era, but in spite of code of state and edict of church, not much was accomplished in elevating the status of the healing art, until the foundation of the great mediaeval universites, and the subsequent formation of "Guilds", by the physicians themselves. Under the legal restrictions of mediaeval times, the surgeon worked in jeopardy of his life and limb.

As the physicians looked down on the surgeons, so the surgeons of higher education, who in the middle ages could be counted on the fingers, looked down upon the barbers. The barbers were originally trained for the purpose of bleeding and shaving the monks. In this way barber surgery, the surgery of the common people, became wound surgery, that is restricted to blood letting and the healing of wounds. The lowest in the scale were the strolling montebanks who, in couching a cataract would sometimes put out an eye, who mangled the viscera in "cutting" for stone and in attempting to effect a "radical cure" for hernia, not infrequently excised "the radix of humanity itself."

Throughout the middle ages, there were some vague attempts to formulate the principles of medical jurisprudence. These are found in tribal laws, the Capitularies of Charlemagne, the Assizes of the Crusaders, the law of the Emperor Frederick, the Decretals of the Popes and general canon laws. The procedure was often of the crudest kind, the tests being by ordeal, torture, de facto verification of impotence, and "cruentation", or spontaneous bleeding of a corpse in the presence of the true murderer.

Medical ethics and medical etiquette were regulated in detail by stereotyped rules, even as to the bedside manner. The physician should not ogle the patient's wife, daughter or maidservant. If the convalescent show signs of ingratitude in the manner of payment, he might be temporarily sickened by some harmless dosing.

The chief glory of mediaeval medicine was the organization of hospitals and sick nursing. Several religious orders sprang up at the time of the Crusades,—the Alexians, the Antonines, the Beguins, the Hospitallers, the Sisters of St. Catherine, the order of St. John of Jerusalem, and the Teutonic Order.

Parallel with the specialization of the nursing orders during the Crusades, went the great mediaeval hospital movement initiated by Pope Innocent III, which has received the just encomium of

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Virchow. This Pope established the first Holy Ghost Hospital in Rome in 1198, and his example was soon followed all over Europe, so that nearly every city had its Holy Ghost Hospital. It became the ambition of every prince or landgrave to found a *Xenodochium pauperum debilium et infirmorum* —a hospital for poor and infirm pilgrims.

These institutions eventually became specialized as Noscomia, or claustral hospitals for the reception and care of the sick alone; Brephotrophia, for foundlings; Orphanotrophia, for orphans; Ptochia, for the helpless poor; Gerontochia, for the aged; and Xenodochia, for poor and infirm pilgrims.

When the mediaeval priest established in each great city of France a Hôtel Dieu, a place for God's hospitality, it was in the interest of charity as he understood it, including both the helping of the sick poor and affording to those who were neither sick nor poor an opportunity and a stimulus to help their fellowmen. About the beginning of the thirteenth century the hospitals began to pass from the hands of the ecclesiastical authorities into those of the municipality.

The city hospital movement was vastly aided by the immense spread of leprosy in the middle ages. Its spread in connection with the Crusades was appalling. The establishment of leper hospitals for the purpose of segregation was a potent factor in stamping out the disease.

During the Middle Ages, Europe was swept by epidemics as never before nor since. These were attributed to various supernatural or physical causes, but were of course due to the crowded condition and bad sanitation of mediaeval towns and the immorality occasioned by many wars. Wandering soldiers, students and vagabonds were factors in the transmission of disease. It was customary to regard eight diseases as contagious as listed in the following couplet from Rhazes:

Febris acuta, ptisis, pedicon, scabies, sacer ignis, antrax, lippa, lepra nobis contagia praestant.
As translated these diseases are:

Bubonic plague, phthisis, epilepsy, scabies, erysipelas, anthrax, trachoma, leprosy.

Scabies and lepra were often syphilis. Scurvey, influenza, epidemic chorea, sweating sickness and plica Polonica visited Europe as pandemics. Black Death and syphilis were later and more malignant visitations.

The mediaeval physician's case book, the Consilia, which were similar to our present day hospital record, were not introduced until the fourteenth century, although leading medical men had always kept some form of case record.

The great struggles for commercial supremacy and sea power in the middle ages were connected with the drug trade. The lucrative transport service required by the Crusaders in the Mediterranean brought about the rise of the Naval power of the Venatian republic. The influences of Arabic pharmacy, the actual contact of the Crusaders with their Moslem foes greatly enhanced the value of far Eastern drugs.

What was the appearance and manner of the Mediaeval physician? How did he dress and how conduct himself in public and in classroom? Some sidelight is afforded by the miniature paintings which illuminate many manuscripts, and the mosaics, engravings and frescoes in cathedrals and museums. The most famous artists, such as Giotto, Vanni, Rubens, Cimabue, Ghirlandajo, Holbein and others have depicted him vividly and accurately. Often he is shown inspecting the urine, a common practise of this age. The urinal became the emblem of practice, and was even used as a signboard device.

The clothes of the mediaeval physician were usually of a clerical cut, consisting of gown, cloak, cap, long woolen stockings and slippers.

The miniature paintings illustrate the physician carrying out the details of uroscopy, venesection, rectal irrigation, preparation of drugs, bedside scenes, with clinical and anatomic demonstrations, showing that the living nude body was sometimes boldly used for didactic purposes in anatomic and obstetric teaching.

Pathological conditions were often portrayed in painting and sculpture. Examples of these are a representation of rhinophyma by Ghirlandajo in the Louvre and a carved figure of acromegaly on a flying buttress of Rheims cathedral.

And so, in the nearly two centuries covering the period of the Crusades, we have seen medicine develop from a cult of faith healing and quackery into a budding science built upon solid foundations. These foundations included a reverence for the experience of the ancients as revealed in their written works, the beginnings of experimental research, university teaching and hospital practice, and the development of the auxiliary professions of nursing and pharmacy. The present day result of this evolution is that splendid and vigorous plant which we know as modern medicine.

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WATER POLLUTION CONTROL*

ARTHUR D. WESTON

The Author. *Mr. Arthur D. Weston, Chief Sanitary Engineer, and Director, Division of Sanitary Engineering, Massachusetts Department of Public Health, Boston, Mass.*

IN accepting the invitation of your President to address you on the subject matter of water pollution and water pollution control, I did so with considerable enthusiasm because the support of the medical profession is most essential in any water pollution program.

I feel that you are justified in asking the question, "Why all the interest manifest throughout the country on water pollution control at the present time?" My answer would be that the public, having become increasingly pollution minded, has begun to realize the need of additional authorization for most law enforcement agencies having to do with water pollution control. They demanded a change for the better. As Al Smith, the very beloved late Governor of New York State, would say, "Let's look at the record."

In the edition of the *Boston Traveler* of September 25, 1946, Mr. Harold L. Ickes had this to say in his column, "I'm Telling You":

"The pollution of our rivers, streams and beaches is an ever-growing menace. It is a threat to our recreation, our health and our food and water supply, and, like some other vices, it is extremely expensive. More than 3400 cities and towns inhabited by 29,000,000 persons discharge into our waterways a volume of 2½ billion gallons of raw sewage plus 3¾ billion gallons of industrial waste each day.

As a result, rivers that normally would provide ideal areas for play and sport have degenerated into stinking, disease-bearing cesspools of sewage and refuse. Fish cannot survive in them, swimming is suicidal, and from the esthetic standpoint they are decidely unpretty. There is also the expense involved in treating them to produce drinking and usable water. The annual economic loss resulting from water pollution has been variously estimated at from a hundred million to a billion dollars." . . .

Kenneth Markwell, when Assistant Commissioner of the Bureau of Reclamation, once stated:

"Recklessly we mined the soil of our farms and allowed it to waste into our natural waterways. Ruthlessly we cut away the forests that conserved moisture. Lush grasslands which provided our supply of cheap beef were overgrazed. Floods devastated millions of acres, and streams were polluted."

Relative to coastal pollution, the New York State Department of Health in its "Public Health News," Volume 12, No. 3, pages 402 and 403 had this to state:

"The use of the (sewage) receiving waters should receive first consideration because of ts direct bearing upon the health of its users. Certainly it is an undisputed fact that disease can be transmitted by polluted waters. The literature is voluminous with reference to epidemics of typhoid caused by the pollution of natural waters with sewage, and the matter has been so thoroughly investigated and demonstrated that there is no longer any doubt in the minds of the sanitarians concerning the causation of this disease. From our examination of other records, it also was noted that there is a well-formed opinion among sanitarians and medical experts that diseases other than typhoid may be contracted by coming in contact with polluted waters. These diseases, in general, are not of the type that are as important to the individual as typhoid, inasmuch as the person's life may not be endangered by them. The group as a whole, however, is an important item in injuring the health of the persons infected and causing a consequent loss due to lost time and medical treatment. We believe that in the aggregate this loss at the present time may be a greater one, financially, than that of typhoid fever, although its significance has long remained hidden.

Among those infections which, with the opening of the artificial bathing places, are becoming more severe, may be mentioned conjunctivitis, infections of the nasal passages, . . . sore throat, diphtheria, dysentery and ringworm. Information wth reference to these epidemics, in general, is suppressed, due to the fact that they often

continued on next page

*Presented at the meeting of the Providence Medical Association, at Providence, March 3, 1947.

occur in sections which are devoted to recreation. It is for this reason, together with the fact that most of these diseases are not reportable, that the literature of this country is not more complete, as remedies have been sought and installed in order to prevent any possible condemnation of the questionable waters."

and as recently as 1943, the State Board of Public Health of California found it necessary to post the Santa Monica Bay beaches with signs which read as follows:

"WARNING
Beach Quarantine

This beach from high tide line seaward, including adjacent shore waters, is polluted with sewage and is dangerous to health. The public is excluded from these areas under order of the California State Board of Public Health.

The area under quarantine extends approximately ten miles along the coast from Brooks Avenue north of the Venice Pier in Los Angeles, to Fourteenth Street, north of the Hermosa Beach pier in Hermosa Beach.

VIOLATION OF THIS ORDER IS A MISDEMEANOR"

The Izaak Walton League of America, through their national office in Chicago, in reference to their national water policy referred to water as the "orphan." Quoting from their recent publication:

". . . There is nowhere in our Federal Government any coordinated national water policy. Amongst the various agencies having jurisdiction or control over water, not one is charged by statute, or by settled policy under that statute, to give first consideration to the public values inherent in natural waters or to give them any protection . . .

Prevent new and eradicate existing pollution to safeguard health and aquatic life."

The speaker could quote numerous resolutions adopted by technical societies throughout the United States—all aimed towards arriving at a solution of the many problems relating to stream pollution. It would take a very considerable time to cite the activities of these societies in this regard, and it would take a great deal of additional time to cite the work under way at the present time in various river valleys throughout the country, more especially under compacts or agreements between states such as the Ohio River Interstate Stream Conservation agreement, the Great Lakes Drainage Basin Sanitation agreement, the upper Mississippi River agreement, the work of the Interstate Commission on the Potomac River Basin, the work of the Interstate Sanitation Commission of Connecticut, New Jersey and New York, the work under the Tri-State compact between Minnesota, North Dakota and South Dakota and that of the Interstate Commission on the Delaware River Basin (Incodel) which includes Pennsylvania, Delaware, New Jersey and New York, but I assume that you are primarily interested in conditions here in New England.

In regard to our New England situation, I quote the following from the preface to a paper recently written by Richard Martin, Director of the State Water Commission of Connecticut:

"There are two potent reasons why Connecticut and New England industries or municipalities can no longer afford to knowingly pollute streams or other bodies of water if there is any reasonable or equitable method of avoiding it. The first is that any company which continues to 'pollute a stream or harbor is advertising an apparent lack of concern for public good will at a time when progressive industrialists are making every effort to achieve good relations with the public and their employees.' A second reason is that the federal government will soon take a hand in the abatement of stream pollution, in a manner far more costly and impracticable than now afforded, unless industry and municipalities quickly respond to the appeals for pollution control now being made by the State Water Commission of this and other states." . . .

The sanitary engineers of New England have been very active over a period of several years to provide a solution of our joint problems of water pollution. Collective action is necessary as action by any individual state against an industry has a tendency to encourage the industry to move into another state where laws in regard to water pollution control might not be so severe. As a result of conferences, these state sanitary engineers have agreed upon a classification of streams which I shall shortly describe. A report was made by these engineers to their respective Health Commissioners, and these Health Commissioners have agreed to the proposed classification, a form of compact has been agreed upon and already the State of Massachusetts has introduced this compact to the Massachusetts Legislature of 1947. Similar legislation is being introduced to the Legislatures of Maine and Connecticut.

A meeting called by the Massachusetts State Planning Board was held on February 17, 1947. All of the Health Commissioners of the Departments of Health and all State Water Commissioners in New England and others having powers of interstate negotiation were invited to attend this meeting. They agreed upon a compact form which provides in part as follows:

"Under Article I, the signatory states would agree that the compact would apply to lakes, ponds and streams which are contiguous to two

or more signatory states or would apply to interstate waters of two or more states whether inland or tidal. Under Article II, a commission known as the 'New England Interstate Water Pollution Control Commission' would be created. Under Article III, this commission would consist of five commissioners from each State. Article IV provides for an election of the Chairman of the commission, the employment of personnel, provisions for the conduct of meetings, the handling of funds, etc. Article V contains a recognition of the fact that 'no single standard of sewage and waste treatment and no single standard of quality of receiving waters is practical and that the degree of treatment of sewage and industrial wastes should take into account the classification of the receiving waters according to present and proposed highest use, such as for drinking water supply, industrial and agricultural uses, bathing and other recreational purposes, maintenance and propagation of fish life, shellfish culture, navigation and disposal of wastes.' This article authorizes the commission to establish reasonable physical, chemical and bacteriological standards of water quality and for the classification of its interstate waters. Under Article VI, the signatory states pledge to provide for the abatement of existing pollution and for the control of future pollution of such interstate inland and tidal waters."

It can readily be seen because of the varied uses of our water courses and tidal waters that an agreed use classification of waters is necessary in the execution of any compact. The classification agreed upon by the Sanitary Engineers of New England is similar to that of a sub-committee accepted by the National Resources Planning Board prior to the recent World War and is in accordance with the present and proposed highest use of waters as follows:

Class A—Waters used as sources of drinking water or for the cultivation of market shellfish.

Class B—Waters used for bathing.

Class C—Waters used for recreational boating, fishing, culture of seed oysters or industrial supply after treatment.

Class D—Waters used primarily for commercial navigation or transportation of wastes without nuisance.

A classification of nearly all New England streams has been agreed upon by these sanitary engineers in accordance with this plan.

Under these various classifications, the physical appearance, dissolved oxygen and bacterial quality of the water might be as follows:

Physical Appearance	*Dissolved Oxygen*	*Bacterial Quality*
Class A—Clear	Near saturation	*Better than 50 coliform organisms per 100 ml.
Class B—Clear	Near saturation	*Better than 1000 coliform organisms per 100 ml.
Class C—Free from slick, odors, or visible floating solids	***Adequate for fish life	No set standard
Class D—Free from slick, odors, or visible floating solids	Dissolved oxygen present at all times	No set standard

Some general observations as to the use of these classifications as suggested by the Special Subcommittee of the New England Regional Planning Committee are as follows:

"1. *Ocean harbors near large sewer outlets.* Such waters would appear to fall for the most part in Class D or less.

2. *Sea water not far removed from large sewer outlets but so situated that one tide does not carry sewage effluent to the area.* These waters would appear ordinarily to fall in Class C.

3. *Sea water along sparsely populated shore areas relatively free from pollution, or sea water outside of harbors.* These waters would ordinarily fall in Class A.

4. *Large rivers draining watersheds of large cities.* These waters would appear ordinarily to fall in Class C, although sometimes in Class D.

5. *Inland streams and lakes draining sparsely populated areas.* These waters should fall in Class A or Class B.

6. *Inland streams now receiving considerable volumes of sewage but not main carriers of wastes.* These waters may fall in Class C but by suitable treatment they may often be advanced to Class B."

What is Pollution?

In order to comprehend the need of compacts, the need of collective action by the various states in water pollution control and the need of water pollution control in each state, one should have a reasonable knowledge concerning the problems of water pollution. Some of these problems are rather complex and may not be as familiar to you as to the sanitary engineers engaged in such practice. For this reason, I take the liberty to illustrate the problem to you.

First of all, it should be understood that all streams and tidal waters receive a certain amount of pollution normal in characteristics to the virgin conditions of such waters. Such pollution results from the decay of organic matter normal to the waters or areas tributary to them. Also, under

continued on next page

natural conditions, such waters have generally been able to care for such pollution by so-called natural or self-purification methods. However, characteristic to large concentrations of population, it has been necessary to establish water carriage systems known as sewerage systems to dispose of the waste of human life, waste from industry and other liquid wastes. This condition has introduced a problem of disposal without resulting in a nuisance, and the problem is greater in the inland cities and towns than in the coastal areas. It is still further aggravated in the older municipalities because of the use of common sewers for both storm water and sewage. As time has gone on, greater and greater uses have been made of local waters for final disposal of these wastes. The result has been that a greater and greater quantity of organic matter, putrescible in nature and containing bacteria and viruses, has of necessity been discharged into water courses as such courses were the only available outlet for the ultimate disposal of such sewage and waste. In connection with such discharges, more especially because of the presence of bacteria especially in the sewage from cities and towns having contagious disease hospitals and large numbers of persons, we have the danger of using the receiving waters for bathing and the taking of shellfish as well as the possibility of transmission of disease by flies which, as you know, thrive and multiply in polluted, damp, wet, soggy places. Where the water course may be used for public water supply purposes, the danger is very acute as the pollution load may exceed that under which a water purification plant may safely operate. In addition to bacterial and virus pollution, conditions arise in such waters whereby the necessary oxygen for self-purification may not be maintained with the result that anaerobic decomposition sets in or putrefaction of the organic matter takes place in the absence of free oxygen resulting in the generation of objectionable gases and nuisances in the vicinity. Such nuisances are deemed dangerous to the public health inasmuch as it is obvious that persons residing in and near such areas must eventually have reduced vitality due to loss of sleep, nervous conditions, etc. A certain amount of such objectionable conditions can be tolerated by the public but after a while there is a demand for correction.

In addition, you have the effect of organic matter and toxic influences from industrial wastes on fish and aquatic life which arouses the animosity of sportsmen and others interested in preserving aquatic life, and we receive complaints as to the effect of pollution upon various forms of recreation. Suits may result where the quality of the water used for industrial purposes is sufficiently damaged.

As you undoubtedly know, Rhode Island, New Jersey and Massachusetts, in that order according to the most recent Federal census, are the most densely populated states in the Union; Rhode Island having a density of population per square mile of about 670; New Jersey, 550; and Massachusetts, 540. In the case of the state of Connecticut, both the Department of Health and the State Water Commission have mandatory powers in the matter of water pollution control. In the state of Maine, there was established during this past year a Water Commission with considerable mandatory powers, but in New Hampshire and Vermont such powers are very limited. In the state of Rhode Island—

> *"The Rhode Island Department of Health is authorized and directed to regulate or prohibit the pollution of the waters of the state. Pollution is held to mean the entrance or discharge of sewage into any of the waters of the state in such quantity as to cause or be likely to cause either by itself or in connection with other sewage so discharged, damage to the public, or to any person having a right to use said waters for boating, fishing or other purposes, or owning property in, under or bordering upon the same. If any person is found to be polluting the waters of the state, the department may enter an order directing such person to adopt some practicable and reasonably available system or means to prevent pollution having due regard for the rights and interests of all persons concerned. If any person is guilty of pollution in violation of an order of the department, he may be punished by a fine of not more than $500.00 or by imprisonment for not more than one year or by both, and each month or part thereof during which such pollution in violation of the order takes place should be considered a separate and distinct offense. The Superior Court shall have jurisdiction in equity to enforce the orders of the department."*

In the state of Vermont, an effort is being made through a publicity campaign by the Vermont State Chamber of Commerce to control pollution by educational methods.

It is to be expected that stream pollution problems will be perhaps more intense in the more densely populated states so far as the state as a whole is concerned. This has certainly been true in the case of Massachusetts where objectionable conditions in some of our water courses were recognized by the Massachusetts Legislature as early as 1884. Under an act of the Legislature of that year, a special commission was appointed to investigate and report as to the sanitary conditions of certain rivers in the eastern part of the State. That Commission, known as the Massachusetts Drainage Commission, reported in the year 1886. It recog-

nized the need of certain improvements, suggested a law which was later enacted permitting our then State Board of Health to establish a large experiment station; since known as the Lawrence Experiment Station, and laid the ground work for the Sanitary Engineering Division of the Massachusetts Department of Public Health. It provided that that Department should carry on experiments in the matter of treatment of sewage and industrial waste, that the Department should warn the persistent violator of all reasonable regulation and management of such wastes. However, the Commission was loath to clothe the Department with mandatory powers. In fact, they stated:

"It shall be their especial function to guard the public interest and the public health in relation with water, whether pure or defiled, with the ultimate hope which must never be abandoned that sooner or later ways may be found to redeem and preserve all the waters of the State. We propose to clothe the Board with no other power than the power to examine, advise and report except in cases of violation of the statutes. Such cases persisted in after notice are to be referred to the Attorney General for action. Other than this, its decisions must look for their sanction to their own intrinsic sense and soundness. Its last protest against willful and obstinate defilement will be to the General Court . . ."

Experience since that time showed the necessity of appealing to the General Court for additional powers. For example, in connection with, or as a result of, the pollution of the Neponset River, special legislation was enacted in 1902 giving the Department mandatory powers in relation to that stream. Similar legislation was enacted in 1907 regarding the pollution of a stream in the easterly part of the State known as Horn Pond Brook, and legislation was enacted in 1911 regarding the Aberjona River; in 1914, the Assabet River; and in 1918, Alewife Brook. Later legislation regarding the Charles River was enacted; while in 1929, legislation was enacted for the protection of certain coastal waters. It was not until 1945 that the Legislature provided all inclusive legislation in regard to lakes, ponds, streams, tidal waters and flats and tributaries thereto. Under this latter legislation, the Department was authorized to prescribe rules and regulations. Such rules and regulations have been prescribed by the Massachusetts Department of Public Health, and it has been necessary only in few instances for the Department to take cases of violations into the courts. In many cases violations have been brought to the attention of the municipality or industries involved and have been settled satisfactorily outside of the courts.

To illustrate how this problem is far reaching throughout the country, I might state that there was presented to the 79th Congress, 2nd Session, a number of bills providing for national water pollution control, and there are before the present Congress at least four bills; viz., H.R. 123, H.R. 315, H.R. 470 and S. 418; also a bill, S. 244, to encourage the prevention of stream pollution by allowing amounts paid for plants for the treatment of industrial waste as a deduction in computing net income. It is interesting to note that since 1897 about one hundred bills have been introduced in Congress in this regard but all failed to pass. Most of us believe that the main reason for this failure is because of the fear of providing an extension of Federal control. It appears only natural that there would be such fear as since the inception of the United States Government, there has been a definite feeling against the releasing of State rights.

It is because of these accumulated aggravating conditions that throughout the country as a whole there has been a deluge of requests for either State or Federal legislation for water pollution control. I believe that the problem should be attacked in a sane and intelligent manner under a program which will adequately protect the public health on the one hand and not make it impossible for industry to survive. I believe that the problem can be solved without Federal interference. Remedial programs must be such as can be properly financed. In New England this problem is being attacked in a sane and intelligent manner by the State Departments of Public Health and the State Water Commissions.

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WATER POLLUTION LEGISLATION

Most of the public, we presume, were pleased to read in large headlines of the press recently that an anti water pollution bill had become law. Accompanying the news a handsome tableau was presented showing the signing of the bill. Caspar Milquetoast, M.D., was not a figure in the tableau and yet there is little doubt that without his modest but determined efforts the event would have been indefinitely postponed.

The committee from the State Planning Board did a lot of hard work on this project but it was stopped by the war and in the words of that greatest of Democrats, Grover Cleveland, it was in a state of "innocuous desuetude." Then the Providence Medical Association, by its President, Dr. Paul Cook, appointed a committee a year ago. This committee was able in short order to get a fairly accurate idea of the problem from a study of the State Planning Board's work. The resulting report was frank and aroused some adverse criticism, but it certainly put plasma into the veins of a mighty decrepit patient.

The conclusions which were most vigorously assailed have since been most emphatically vindicated by official action. This JOURNAL backed up the committee of the Medical Association whole heartedly; Dr. Cook devoted his Presidential Address to water pollution, the State Society took over the problem from the local association, and at the March meeting of the latter organization, Dr. Charles A. Stuart, Professor of Biology at Brown University and Mr. Arthur D. Weston, Chief Engineer, Massachusetts Department of Public Health, gave highly important talks.

And now everybody in our community seems to be as much "agin" pollution as Cal Coolidge's preacher was "agin" sin. The plans of the State Board of Health were necessarily interrupted by the war but now under the supervision of Mr. Walter J. Shea, Acting Chief of the Division of Sanitary Engineering of the Rhode Island Department of Health, they are actively pressing the campaign. No better first move towards reform could be made than impounding and treating the liquid feces of Pawtucket and other Blackstone Valley communities.

But if the referendum is accepted and the Blackstone Valley plant built, only one particular source of pollution has been solved. There remain the nasty Moshassuck, and Woonasquatucket, the inadequate sewage systems of Providence and other communities, the Navy's sewage—in the past an enormous offender. Manufacturing plants may still be dumping enough chemicals to kill the fish and oil may still be killing ducks, smearing the shores, and killing oyster spawns.

Among the five anti-pollution bills just passed by the legislature, one aims to help control the oil problems. Due to aroused public opinion, efforts in the various communities to improve their sewage systems are underway. A commission has been appointed to handle the Blackstone Valley project but machinery is needed for all the other jobs.

The public must not be allowed to sink back into its somnolence, even to the point of lethargy, which has for years prevailed. It is going to require a long, patient and intelligent effort to keep the necessary work going for the regeneration of our Bay.

BRISTOL COUNTY ORGANIZES

The Rhode Island Medical Society is the only state medical organization that does not have all its constituent member groups as county societies. For geographical reasons our state medical society has chartered three county societies and three district societies until this year. Now, by action of the House of Delegates, a charter has been issued to the physicians of Bristol County to permit them to form a constituent association in that area. Thus the Bristol delegation moves from the jurisdiction of the Providence Medical Association.

In spite of the limited number of physicians in the county the new organization should prove a valuable asset as an independent association. Enthusiasm for local projects, and study of local problems, can best be carried forward at the local level. The Bristol county physicians are in a position to contribute much to the community and professional planning in their area, and they may well emulate in time to come the example of the Kent County society which has initiated action for its general hospital.

They can render additional service to the State society by active participation in the work of the Council, the House of Delegates, and the various committees. We wish Doctor Merchant, first president of the new Association, and his colleagues, success in the development of the newest unit of one of the nation's oldest state medical societies.

PROVIDENCE URBANITY, 1836-1947

Dr. Reginald Fitz of the Harvard Medical School, recently President of the Massachusetts Medical Society, and one of the prominent figures among the country's internists, is historically minded as evidenced by many articles he has contributed to our literature. Being this way he must realize the propriety of our mentioning that he is the son of Reginald Heber Fitz who first recognized and described acute appendicitis and acute pancreatitis. Recently he came to Providence and gave a charming talk about Dr. Oliver Wendell Holmes. Now he sends us the following letter and the accompanying aspects of life here over a century ago:

"To the Editor
Rhode Island Medical Journal.

"I have just experienced the pleasant hospitality of Rhode Island at a meeting of the Friends of the Library of Brown University. I can best express my gratitude to my hosts through the words of a distinguished fellow Bostonian; for I believe that the people of Providence have lost nothing in charm or in urbanity during the changing times of the last hundred years.

Yours sincerely,
(Signed) Reginald Fitz, M.D."

* * * *

"(From the diary of Benjamin Waterhouse, M.D., late Professor of the Theory and Practice of Physic in the University of Cambridge and of Natural History in the College of Rhode Island.)

"November, 1836. Having accepted a written invitation of the Rhode Island Historical Society to deliver a Public Discourse before them on some subject connected with the views of that association, and some time before the middle of November, and having received a second request that I would give the Introductory Lecture during the sitting of their Legislature, I went to Providence the 4th of November in my own carriage, driven by Ed. Battles, and arrived there the 5th. I avoided the rapid steam carrs, as too *whirligiglish* for a man who wished for a cool and steady head. The day contemplated and advertised the 3d, was ushered in by snow and rain which abating towards night gave something like fair weather on the 6th when I gave my Discourse in Franklin hall to a very respectable audience of both sexes; and to universal satisfaction as a patient audience testified during one hour and twenty-five minutes.

"I chose for my subject, *the Duties and Qualifications of a Consummate Historian. . . .* I endeavored not to diminish the solemnity of my subject, nor my serious manner of enforcing it; and I found that all who conversed with me subsequently seemed to treat me as a minister rather than a physician.

"They had provided for me in a very pleasant family—that of the Reverend Romeo Elton—a Professor of Greek and Latin, and Antiquities, and Secretary of the Historical Society. He and his amiable wife seemed to exert themselves to make every thing agreeable to me, in which they succeeded. Having no children, their house was tranquil, their accommodations excellent and their company collected out of respect to me, of the most excellent of both sexes. After tarrying with them nearly a week, I returned home in one day, in good health and highly gratified. . . .

"September 7th. Went to Providence Commencement. Very good speaking, and the English compositions of rather higher grade than here in Cambridge. A vast collection of people, quiet and orderly, everything on the whole exceeding the oldest University in New England for a show of riches and splendor. The dress of the opulent female exceeded anything ever exhibited here. The number in the dinner-hall very large.

"As far as I am able to judge, the City of Providence exhibits more taste, opulence and refinement than any city can or does exhibit in Massachusetts. . . . Their college and schools are in a fine condition and their streets clean and

continued on next page

commodious, and there is more of the economy and neatness in the busy part of the town than I have seen anywhere else. . . . On the whole, they appear to be a high spirited people capable of anything they set their minds on. I may be mistaken, but I suspect the college feels something like jealousy of the Rh. Island Historical Society lest it should grow into another Royal Society, or Academy of Arts and Sciences—a seminary of Science for grown up men, who think and act for themselves, and not an overgrown school of youth who are trained to repeat handsomely the sentiments of men endowed with experience and matured knowledge. The volumes of the transactions of the Rhode Island Historical Society published from time to time will give such a permanent history of progressive science that will over-top occasional effusions of elocution and oratory.

"September 8th. I returned from Providence Commencement in the rail carrs for the first time in my life, and found them very convenient and not unpleasant, but not so rapid as I was made to believe. They ran about 20 miles an hour, and stopped a few minutes three times."

UNFAVORABLE PUBLICITY

Frequently, when Organized Medicine locally finds itself in a position where it must take a stand on a matter of general public interest, it may happen that the ultimate expression of its opinion is at variance wth the true convictions of a majority of its members because public airing of those convictions might lead to "unfavorable publicity." Time and again, the bugaboo of "unfavorable publicity." has arisen to color the decisions of our Comitia Minora, Stated Meetings and Coordinating Council. This has been the case, in the main, where a large organization, such as Associated Hospital Service, Health Insurance Plan, or the Red Cross, or a powerful individual, such as the recent Mayor, has been involved in the matter at issue. To invite opposition of this calibre by differing with their views is frequently tantamount to calling down upon ourselves the full wrath of well-organized publicity bureaus. Rather than risk this, we have acquired the tendency to modify our pronouncements so as to make them acceptable, and by this means avoid unpleasantness, regardless of whether we have revealed our true feelings.

The proponents of such obfuscation rationalize by talking of the "spirit of compromise." Harsher critics lean more toward "appeasement," with all the connotations that have come to be associated with the word. And they may properly question if honest expression can prevail, where a threat to our well-being is the penalty for non-conformity. By what stretch of the imagination can the true sprit of compromise maintain beneath the sword of Damocles?

—From an editorial in the Bulletin of the Medical Society of the County of Queens (NY).

(The JOURNAL regrets that part of the poem below was inadvertently omitted in the reprinting of it in the March issue. The poem in its entirety, and as originally published, is now reprinted correctly.

. . . The Editors)

"THE SONG OF A MAN'S OWN HEART"

Systole-diastole the whole day through
In a never-ending sequence while you live by what I do
With your life blood passing through me in a cadence like a song
Systole-diastole the whole day long.

S y s t o l e - d i a s t o l e the long night hours
While you rest I still am working though I'm garnering my powers
For the efforts of the morrow for the travail and the fight
S y s t o l e - d i a s t o l e through all the night.

Systole! Diastole! is it fear or is it rage!
Or perchance it's joy that keeps me knocking 'gainst my bony cage
You can sense my throbbing tumult or as keen as joy or fear
Systole! Diastole! when your mate is near.

SYSTOLE! DIASTOLE! you are prostrate on your bed.
And the poisoned torrent rushes, clouding brain and aching head,
I, your ally in extremis, fighting foetid fever's powers
SYSTOLE! DIASTOLE! oh the long hours!

Systole-diastole now the race is almost run
Long the years we've toiled together in the shadow and the sun
May the germ cells of our offspring carry what of us is best
Systole-diastole systole-diastole
s y s t o l e - d i a s t o l e REST!

—ALEX M. BURGESS, M.D.

(Reprinted from the Rhode Island Medical Journal, May, 1927)

PATRONIZE

JOURNAL

ADVERTISERS

PROGRAM . . . 136th ANNUAL MEETING

RHODE ISLAND MEDICAL SOCIETY

May 14-15, 1947 — ***At the Rhode Island Medical Society Library, Providence***

WEDNESDAY, MAY 14

2:00 P.M. CALL TO ORDER
WELCOME BY PRESIDENT, Herman C. Pitts, M.D.
RECOGNITION OF DELEGATES FROM OTHER SOCIETIES

Presiding: JOHN F. KENNEY, M.D., *Immediate Past President*

2:15 P.M. "PSYCHIATRIC LESSONS LEARNED IN THE ARMY"

MALCOLM J. FARRELL, M.D., of Waverley, Massachusetts

(Superintendent of the Walter E. Fernald State School; Chief Consultant to the Surgeon General, U. S. Army and the Cushing Veterans Hospital; Instructor in Psychiatry at Boston University Medical School and Tufts College Medical School.)

2:45 P.M. "ANTI-BIOTIC AGENTS IN CLINICAL MEDICINE"

CHESTER KEEFER, M.D., of Boston, Massachusetts

(Physician in Chief, Massachusetts Memorial Hospitals; Professor of Medicine, Boston University School of Medicine.)

3:15 P.M. "USE OF ESTROGENS AND PROGESTERONE"

ELMER L. SEVRINGHAUS, M.D., of Nutley, New Jersey

(Director of Clinical Research, Hoffmann-LaRoche, Inc., Consultant in Endocrinology and Nutrition.)

3:45 P.M. INTERMISSION TO VISIT TECHNICAL EXHIBITS

4:15 P.M. THE CHARLES V. CHAPIN ORATION

"Control of Typhus Fever"

STANHOPE BAYNE-JONES, M.D., of New Haven, Connecticut

(Professor of Bacteriology, Yale University School of Medicine; President, Army Epidemiological Board, Office of the Surgeon General, U. S. Army; Formerly Brigadier-General, MC, and Director, United States of America Typhus Commission.)

continued on next page

5:15 P.M. TOUR OF THE TECHNICAL EXHIBITS

6:00-7:00 P.M. RECEPTION . . . . . At the Narragansett Hotel
(For Members of the Society and their Guests)

7:00 P.M. DINNER . . . . . At the Narragansett Hotel
(*For Members of the Society and their Guests*)

9:00 P.M. *Presiding:* FRANK T. FULTON, M.D., of Providence
Anniversary Chairman
Presentation of the Charles V. Chapin Memorial Award:

HON. DENNIS J. ROBERTS
Mayor of the City of Providence

Greetings from HON. JOHN O. PASTORE, *Governor of Rhode Island*
President's Message: HERMAN C. PITTS, M.D.,
President, Rhode Island Medical Society

THURSDAY, MAY 15

At the R. I. Medical Society Library

Presiding: MICHAEL H. SCANLON, M.D., *Vice President*

11:00 A.M. "CURABLE HEART DISEASE"
MARSHALL N. FULTON, M.D., of Providence
(Physician, Department of Medicine, and Associate, Department of Cardiology, Rhode Island Hospital.)

11:30 A.M. "COMMON DERMATOLOGICAL CONDITIONS AND THEIR TREATMENT"
WILLIAM D. WOLFE, M.D., of Baltimore, Maryland
(Attending Dermatologist, South Baltimore General Hospital and Mercy Hospital; Instructor in Dermatology, Johns Hopkins University.)

12:00 NOON BUSINESS MEETING OF THE SOCIETY
INSTALLATION OF OFFICERS FOR 1947-48

12:30 P.M. LUNCHEON (A buffet lunch will be served to members of the Society in the basement dining room)
Presiding: ARTHUR H. RUGGLES, M.D., *President-Elect*

2:00 P.M. "LOBOTOMY"
HANNIBAL HAMLIN, M.D., of Providence
(Consulting Neuro-Surgeon, Butler Hospital, Emma Pendleton Bradley Home, Chelsea Naval Hospital, Boston State Hospital)

2:30 P.M. "TRENDS IN PART-TIME INDUSTRIAL HEALTH SERVICE"
CRIT PHARRIS, M.D. of Hartford, Conn.
(Assistant Medical Director, United Aircraft Corporation, East Hartford, Conn. Formerly Industrial Hygiene Physician, Connecticut State Department of Health, and formerly Director of Industrial Hygiene Service, Tennessee Department of Health.)

3:00 P.M. INTERMISSION TO VISIT TECHNICAL EXHIBITS

3:30 P.M. PRESIDENTIAL ADDRESS:
"CHANGES IN MEDICAL PRACTICE"
HERMAN C. PITTS, M.D., of Providence
(President, Rhode Island Medical Society; Former President of the American Society for the Control of Cancer.)

4:00 P.M. "IS ASTHMA A SYMPTOM OR A DISEASE?"
FRANCIS M. RACKEMANN, M.D., of Boston, Massachusetts
(Physician and Chief of Allergy Clinic, Massachusetts General Hospital; Lecturer in Medicine, Harvard Medical School.)

ALLIED MEETINGS

WEDNESDAY, MAY 14

At the R. I. Medical Society Library

THE RHODE ISLAND ASSOCIATION OF MEDICAL RECORD LIBRARIANS

Presiding: MISS MARY NUNEZ, R.R.L., *President*

10:00 A.M. BUSINESS MEETING

11:00 A.M. "RECORDS AND NEUROPSYCHIATRY"—LAURENCE A. SENSEMAN, M.D.
(*Chief, Neuropsychiatry Division, The Memorial Hospital, Pawtucket, Rhode Island*)

11:30 A.M. "THE LEGAL ASPECT OF MEDICAL RECORDS"—HON. PATRICK P. CURRAN
(*Judge of the Superior Court, Providence, Rhode Island*)

Exhibitors at the

136th ANNUAL MEETING OF THE RHODE ISLAND MEDICAL SOCIETY

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HEALTH MAINTENANCE CLINIC FOR CANCER PREVENTION AT THE PAWTUCKET MEMORIAL HOSPITAL

PURPOSE: To encourage so-called well people to have semi-annual examinations with particular reference to parts frequently affected by cancer and to discover conditions which are the forerunners of cancer.

From a research point of view, much of the value of these periodic health examinations will be the data accumulated over the years.

Those who come for an examination are called "examinees" rather than patients because no one who is ill or is under treatment is given an appointment. The clinics give no treatments. Their one function is examination with special emphasis on conditions which may lead to cancer. Another function is public education. It is hoped these examinees will, by their example, encourage their friends to do likewise and seek examinations at least twice a year from their physicians or a clinic with the particular reference to conditions which may lead to cancer.

ORGANIZATION: With funds from the State of Rhode Island, the clinic is furnished with nurses, laboratory technicians and other personnel pertinent to the functioning of these clinics. Two doctors and an alternate will conduct the examination and the clinic will be supervised by a director.

These clinics will be held once a week on Monday mornings. Examinees will be given appointments in advance and the number of examinees per morning will be limited to the capacity of the clinic.

After examination, if no conditions are found which are suspicious, an appointment will be made for six months later. Whenever there is a positive finding, the examinee is referred to her physician and the latter is requested to report back upon the treatment given. Should the condition be urgent, the examinee may be sent immediately for treatment but in the case of the least urgent ones, there will be a slight delay until laboratory data has been received. Records being based on reports from personal physicans are kept of what treatment is administered, when, where and by whom.

ROUTINE OF THE EXAMINATIONS: The examinations are complete physicals, including skin, mouth, tongue, pharynx, larynx, breast, pelvic, rectum, lymph nodes, feet, etc.

Routine laboratory test—blood, urinalysis and Wassermann. Cervical smears are taken and studied by the Papanicolau method. When special studies are indicated eg. cystoscopy, biopsy, G.I. series, etc., these are done wherever the examinee or his physician desires. Such special diagnostic procedures are not provided at the clinics.

It is felt that this is a step forward in the battle against cancer with the hopes that early detection may be obtained. It is not to be considered a tumor clinic because tumor clinics are already organized and the patients who suspect they have tumors are still referred to our tumor clinics. This group of people, we presume to be well people and only as such will be accepted. The importance of early detection of cancer cannot be overestimated. Almost without question, early cancer is curable. It is true that in many parts of the body, cancer does not give early symptoms but it is likewise true that in some of the most common parts of the body, cancer gives early symptoms. It is a notable fact that from the clinics already established around the country, there is an average af about 50% where the so-called well people were referred for treatment of some condition found at these clinics.

The staff consists of Dr. G. Raymond Fox, director, and Drs. Francis E. Hanley, Hrad Zolmian, and Dr. James Chapman, alternate.

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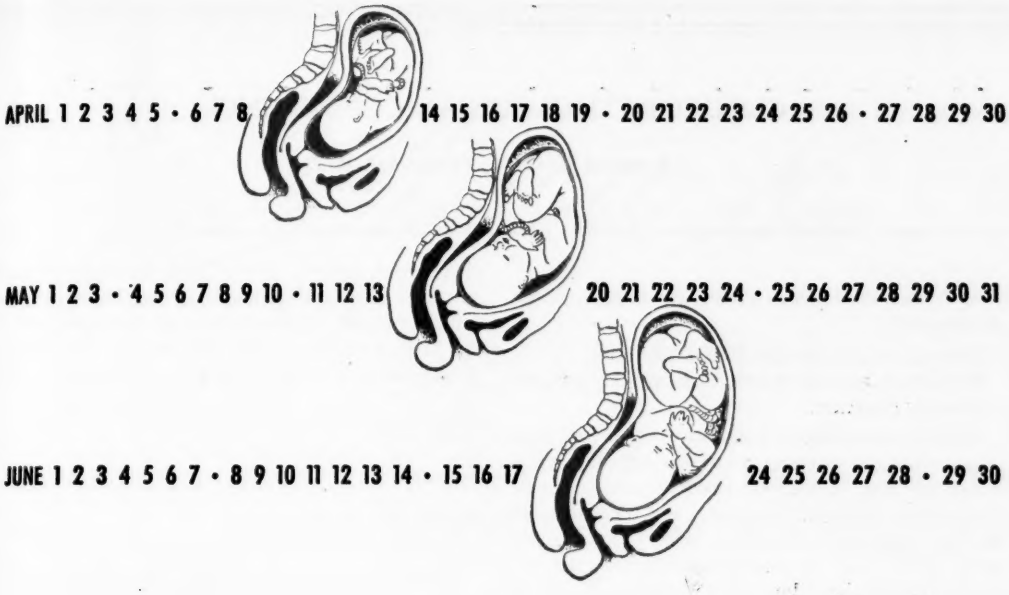

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SEARLE

RESEARCH
IN THE SERVICE OF MEDICINE

CLINICOPATHOLOGICAL CONFERENCE

Memorial Hospital, Pawtucket, R. I.

Case No. 66675

A 46 year old American male was admitted complaining of:

Loss of weight, two months' duration.

Weakness, pain in epigastrium and tarry stools, six weeks' duration.

Patient states that he has always been well until two months ago when he noted loss of appetite and beginning loss of weight, twenty pounds during the past two months. Six weeks ago while at work as a yardman at the Anaconda Wire Works he had some sharp pain in the epigastrium and he felt dizzy and complained of thirst. Since that time he has had almost continual abdominal pain and states that his stools have been tarry and constipated. The day before admission, he vomited what he described as coffee ground material.

Physical examination revealed an emaciated, sallow appearing male of 46, complaining of pain in the epigastrium. A complete physical examination was made and the findings were within normal limits except for the abdomen which was described as being flat, no scars. There was a 6 cm. x 8 cm. firm mass in epigastrium. Pulsation and bruit most marked over region of mass. Some guarding and tenderness. Peristalsis present.

T. 100 P. 110 R. 20 Blood pressure 130/90.

During his stay in the hospital, condition remained essentially unchanged until the 9th day. The pain in the abdomen was more or less constant and he required morphia approximately twice a day. He got no relief from food or soda. Temperature ranged between 98 and 100. Pulse 70 to 120. Respirations 20 to 30.

On Admission:

Hemoglobin 38%; R.B.C. 2,490,000; W.B.C. 18,100; Polys 85%; Lymphs. 14%.

Blood urea nitrogen 13.8; sugar 96.

Icteric index 5. Occult blood from stool positive.

3rd Day:

The blood pressure was found to be 80/44 with no change in general condition. X-Ray—"Barium meal studies of the G.I. tract had to be carried out in the horizontal position because of the patient's poor condition. As far as could be determined the stomach and duodenal bulb showed no definite abnormality. However, the remaining portions of the duodenum, namely the second, third and fourth portions described what appeared to be a rather wide arc, with slight narrowing and spasticity of the second portion of the duodenum. This finding is suggestive of enlargement of the head and body of the pancreas, possibly neoplasm although a definite etiological diagnosis cannot be made from the x-ray examination alone. There was no obstruction."

4th Day:

1/19/44—Surgical Consultation:

"This man appears to have a hard mass the region of the epigastrium. The abdominal veins are enlarged, suggesting portal vein obstruction. This mass could come down from the liver; it might well be retroperitoneal as you have suggested from the pancreas. However, blood in the stool would not be explained. This does not feel grossly as though it were connected with the stomach.

Recommendations: Suggest x-ray of chest in particular; also, in standing position to get a relative idea of the diaphragm. His Wassermann report is not back yet. If there is nothing to contraindicate an exploratory, when these tests come back, would advise the same.

5th Day:

X-Ray—"Examination of the chest shows some dense bands radiating out from the left hilus which suggests the presence of an area of fibrosis possibly from an old tuberculous process. The findings were otherwise essentially negative. There was an anomaly of the right first rib which is underdeveloped and is fused at its anterior end to the slightly deformed second rib. Both leaves of the diaphragm showed no definite abnormality.

9th Day:

At 8:00 A. M. the patient was comfortable and took his diet well. T. 98.6—P. 108—R. 20. At 11:45 A. M. he complained of severe pain in right lower quadrant and "diarrhea" and he went into collapse. His pulse became weak and thready, respirations shallow and he died at 12:20.

DR. H. ZOLMIAN:

"This is the case of a 46 year old man with two months weight loss, six weeks of epigastric pain, tarry stools and weakness as chief complaints. He

continued on page 278

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CLINICOPATHOLOGICAL CONFERENCE

continued from page 276

had one coffee ground vomitus. On examination twice it is recorded that he had hard epigastric mass and x-ray showed question of deformity or spasm at the duodenal arch. He showed by laboratory tests hypochromic anemia that would be consistent with blood loss. He had dilated veins which might be significant indicating possible portal obstruction and a terminal episode which seemed to be massive hemorrhage which proved to be fatal. Dr. Benjamin is not able to attend to demonstrate the x-rays so I think we will take his reports as they stand without demonstrating them. To start with I think we could rule out a primary bleeding disorder since there is no evidence in history or laboratory work or other indications in record that he might have had it. Obstructive lesions I think can be ruled out as he had no signs of being obstructed. Abdomen flat and peristalsis heard.

Some conditions which may cause intestinal bleeding such as intussusception, volvulus and tumors of the small intestine usually cause some obstruction and we might rule them out.

The location of this bleeding I think would help us in localizing and diagnosing the case. Since he had tarry stools I do not believe he had bleeding from the colon or ileum. I do not think it would be described as tarry. Bleeding from the jejunum might give us tarry stools but I do not believe it would give us bloody vomitus which is described. There might have been obstruction with a jejunal lesion but as I said before there has not been any indication of obstruction with this mass. Pain and melena, if they persist with negative x-ray nevertheless make us consider a small intestinal condition as being a possible reason for the bleeding. That brings us to bleeding somewhere between the pharynx and the end of the duodenum at the ligament of Treitz. If we had bleeding in this region we should consider bleeding from the duodenum, stomach or lower end of the esophagus with varices as a cause for bleeding. With a mass described as the other chief sign, I think we should consider some condition such as pancreatic cyst or mesenteric cyst which might pulsate because of transmission from the aorta retroperitoneally. However, even though they might bleed I doubt that that would give us bleeding in the intestinal tract.

Retroperitoneal tumors such as lipoma and sarcoma might grow and show this mass but I do not believe that this is such a rare tumor especially in such a position with the bleeding described. Dilated gall bladder due to some neoplasm at the duct or in the gall bladder itself might give us a mass. However, I would think of other gastrointestinal symptoms in the history and probably some jaundice.

Infections—We might consider infections in this region with the formation of an abscess, for example, acute or chronic pancreatitis. An abscess might develop a mass in this region. However, fever and white count in this case are not enough to account for that type of infection. Infection of a milder nature I do not believe would give us this mass and I think the fever and white count in this case we can account for by the large amount of blood in the bowel.

Bleeding varices might give us a massive hemorrhage such as described. A rare condition such as Banti's Disease might but I do not believe that this man has such a condition because the spleen is not described to be enlarged. Cirrhosis, we would expect, would give us portal obstruction and bleeding but the liver has not been described as enlarged. Gastritis I am ruling out because there were no previous symptoms. I am trying to tie in this mass with the bleeding and I do not believe gastritis would give us such a mass. In these conditions we would expect some signs by x-ray and x-rays are negative for deformity. Hitaus hernia with gastritis may be ruled out for the same reasons.

Some benign tumors such as polyps of the stomach might give signs as in this case but are not demonstrated by x-ray. Leiomyosarcoma, fibroma and neuroma are tumors of the stomach which might give bleeding and might not be shown by x-ray. These are rare and I do not believe this man had any of these tumors. Ulcer or carcinoma of the stomach might not have been demonstrable by x-ray in this man but I still believe that some deformity should have been shown in the x-ray and I am ruling these out. Rarely you may have a pancreatic cyst that might ulcerate and bleed. However, these are rare and I do not believe this man has such a condition. Duodenal ulcer is the most common lesion which would give us fatal and such massive hemorrhage. But, I could not account for the mass and fit it in with the diagnosis.

I have selected a few conditions which could fit in with this history and examination which might give us massive hemorrhage and a mass in the epigastrium together. I have considered cirrhosis of the liver with a possible portal obstruction and with a left lobe palpable in the epigastrium. Since the right upper quadrant and that portion of the liver has not been mentioned, it is hard to fit this in especially without other symptoms, except dilated veins in the abdomen. In syphilitic livers, it is said that this left lobe might enlarge out of proportion to the rest of the liver. I understand that a Wassermann was not reported.

I am considering, also, the possibility of a primary liver tumor which again might give us a mass in the left lobe or a mass in the epigastrium, transmitting pulsation from the aorta posteriorly, either

continued on page 280

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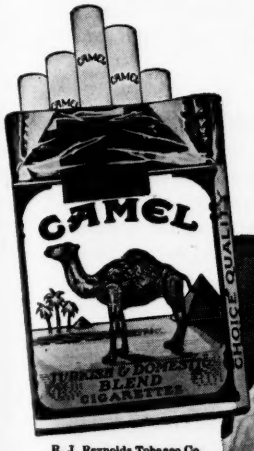

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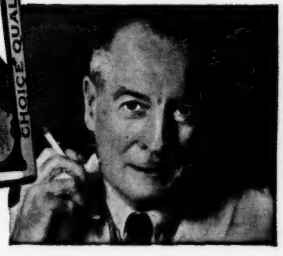

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CLINICOPATHOLOGICAL CONFERENCE

continued from page 278

syphilitic cirrhosis or hepatoma might give us a venous hum in this region. Abdominal aneurysm is another condition to consider which might give a mass here with pulsation and murmur. However, it is hard to conceive of its eroding through the retro-peritoneum causing bleeding for six weeks and not ending fatally before this long period. Usually the abdominal aneurysm might erode and bleed retro-peritoneally or into the peritoneal cavity. Besides in aneurysm, we might expect some other changes such as changes in the blood pressure with a difference between arms and legs. In an aneurysm especially I would like to have an expansile type of pulsation described rather than just a pulsation, as a pulsation might be transmitted through overlying tumors from the abdominal aorta.

Leiomyomata of the stomach or duodenum might give us a tumor without signs or symptoms which might project away from the direction of the lumen and finally erode and cause bleeding. This might transmit pulsation and give us the tumor with bleeding and I think I consider that as one possible diagnosis. Slight x-ray change at the duodenum may indicate that there was a tumor here. Pancreatic carcinoma is another one that I might consider. This man did not show signs of jaundice. Although we would expect jaundice in two-thirds of the cases, this might fit the one-third without jaundice. Pain is described in three-quarters of the cases. It is possible that this man had a pancreatic tumor which might fit the pain and could transmit pulsation and erode into the duodenum to give us the bleeding which pancreatic carcinoma may occasionally give. It could as with cancer of the stomach or duedenum or gastrointestinal tract cause an invasive thrombophlebitis with portal obstruction and dilated veins.

I am considering that the terminal event was a massive hemorrhage with this feeling of "diarrhea", due to fatal hemorrhage and pain in the right lower quadrant as result of hemorrhage.

I am not going to restrict myself to one single diagnosis but offer the following:

(1) Carcinoma of the Pancreas
(2) Leiomyoma of the Duodenum
(3) Abdominal Aneurysm
(4) Cirrhosis or Tumor of the Liver"

DR. J. P. EDDY, 3RD:

"In listening to Dr. Zolmian, I was rather impressed with the fact that this patient has had no back pain, at least none was mentioned. Back pain is frequently associated with pancreatic carcinoma and also with intra-abdominal aneurysm. Because it was not mentioned, I rather thought he probably did not have that type of pain, therefor, I would not lean quite so strongly toward either of those diagnoses.

His symptoms suggest gastrointestinal bleeding. There is no mention here of a gastric analysis which would be helpful, but nevertheless, he vomited coffee ground material and had blood by stool and loss of weight, and because of these, one would have to seriously consider gastric carcinoma.

My feeling would be that he had a malignancy and died from malignancy and probably malignancy of the stomach or a malignancy which penetrated through to the gastrointestinal tract with hemorrhage."

DR. F. WEBSTER:

"First the blood pressure was 130/90. Three days later, the blood pressure was 80/40. I think that in consideration of this man's illness, we could have had more information particularly about the genito-urinary tract. Also a retroperitoneal sarcoma or neoplasm affecting adrenal glands and possibly overlying and compressing the aorta, thus causing constriction and giving a perfectly good mechanism for transmitting sound from the mass, could well explain the bruit."

DR. H. B. MOOR:

"This patient apparently was doing reasonably well except for abdominal pain up to the day of his death. Was reported comfortable at 9:00 A. M. There was a sudden change in his condition between 9:00 A. M. and 11:45 when he was given morphine. It is interesting to note as has already been suggested, no mention of back pain has been made. It is unusual to have a tumor in this area and particularly associated with the pancreas that would not give considerable back pain. In view of the fact that he had an abdominal tumor with a bruit, most marked over the region of the mass, I believe this patient died of hemorrhage following a rupture of an abdominal aneurysm. One would have to also consider a ruptured viscus. Possibly, a carcinoma of the stomach, perforated, with hemorrhage."

DR. E. J. MARA:

"I do not think that there has been too much said about the acute onset, loss of blood, and drop in blood pressure. There is a possibility of a hematoma forming in this area and accumulating blood. A bleeding duodenal ulcer with accumulation of blood and hematoma would be consistent in this case."

DR. B. E. CLARKE:

"The autopsy findings are recorded as follows: 'On opening the body cavity three very large clots of blood were found, one each in the right and left fossae and one in the right lower quadrant. The intestines were prominent with slight dilatation of

continued on page 284

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COUNCIL ACCEPTANCE

ACCEPTED COUNCIL ON PHARMACY AND CHEMISTRY AMERICAN MEDICAL ASSOCIATION

Pyribenzamine now has been formally accepted by the A.M.A. Council on Pharmacy and Chemistry. A report to the Council on anti-histaminic agents was written by S. M. Feinberg, M.D., in the November 23, 1946 issue of the J.A.M.A. Pyribenzamine was found to be highly effective, and produces relatively few side effects.

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NAME_____

CITY_____ STATE_____

CLINICOPATHOLOGICAL CONFERENCE

continued from page 280

the transverse colon. There were a few diverticulae of the descending colon, but otherwise no abnormalities of the colon up to the cecum which was adherent to an organized clotted mass in the right lower quadrant. The transverse colon and duodenum was slightly bound down to a hard retroperitoneal mass which was about 5″ in diameter. On exposure, this mass was found to be a large dissecting aneurysm of the abdominal aorta which had ruptured with drainage to the left side where a large organized thrombus was found. The wall of the aneurysm was necrotic and friable. Both iliac arteries were dilated and sclerosed. Gross diagnosis: Ruptured aneurysm of the abdominal aorta; generalized arteriosclerosis.'

The description of the aneurysm is not complete but the statement is made that it was a dissecting aneurysm. A dissecting aneurysm is, grossly, a quite definite entity and I think we must accept that diagnosis.

Aneurysm is usually the result of one of three causes. One of these is syphilis. This possibility cannot be entirely elminated in this case. The Wassermann report could not be found. The patient is young enough to fall in the age group when syphilitic aneurysm is more common. However, syphilitic aneurysm usually involves the arch of aorta and rarely the abdominal aorta. But the most conclusive evidence against syphilis is the fact that syphilitic aortitis does not result in dissecting aneurysm.

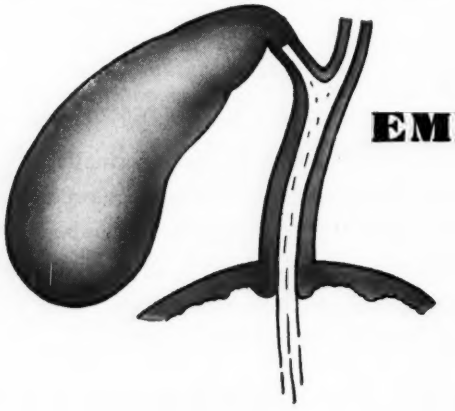
Atherosclerosis is the second cause of aneurysm. This does occur more often in the abdominal aorta. The protocol does not describe any atherosclerosis of the aorta, but does mention it in the iliac arteries. The patient is rather young to have much atherosclerosis. Again, while dissecting aneurysm may result from this cause, it is not usual.

The usual cause of dissecting aneurysm is given the descriptive name of 'idiopathic, medial, cystic necrosis'. The etiology is obscure. The condition is largely a degeneration of the elastic tissue of the media with the accumulation of a peculiar mucoid material in the tissues and later the formation of small cyst-like cavities.

Hemorrhage occurs into the weakened media, probably usually from a ruptured vasa vasorum. The pressure of this blood is sufficient to split the media for some distance so that sometimes there is a new formed channel extending the entire length of the aorta.

The usual termination is for the aneurysm to rupture through the adventitia. This usually occurs in the upper portion with hemorrhage into

continued on page 294



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HOSPITAL ASSOCIATION OF RHODE ISLAND

DIVISION OF TUBERCULOSIS CONTROL

R. I. State Department of Health

THE Tuberculosis control division of the Department of Health has as its function, the discovery, isolation, treatment, education, and rehabilitation of all individuals suffering from tuberculosis.

The case finding unit of this division has been expanded in the past two years. Its offices are located in the State Office building in Providence. It is staffed by a clinical director, clinic physician, public health nurses, photo-fluorographic operators and office personnel. In cooperation with district nursing associations and private physicians, it operates case finding and follow up clinics in the various towns and cities outside of Providence. In the City of Providence this work is done by the Tuberculosis Division of the Providence Health Department and the Providence Tuberculosis League. The League also conducts school and Industrial surveys in the city.

In the chest clinics individuals exposed to tuberculosis are examined and periodic examinations are also made of patients discharged from the sanatorium. In all of these clinic x-ray services are provided. Where local facilities are available for taking chest films these are utilized. This unit also provides advisory and consultation help for pneumothorax centres located in Newport, Westerly, Cranston and Warren. These refill centres are staffed by local physicians trained to do artificial pneumothorax. In the office a central registry of all cases of tuberculosis in this state has been set up. Information flows back and forth between this office and the various cities and towns.

The Divison conducts mass case finding surveys in schools and industrial plants outside of Providence. Lately it has been using the new miniature film technique which utilizes 70 mm. film with rapid filming methods. In spite of the fact that all the equipment needed has not yet arrived, about 12,500 miniature films of the chest were made in 1946. This unit is actively engaged in promoting the use of miniature filming for routine studies of the chests of all admissions to general hospitals and hospital personnel. Several hospitals have already installed these units and others are preparing to do so in the future. This office is ready to help all hospitals in planning such installations.

A bus fully-equipped with miniature filming apparatus is on order and when it is delivered the work of this group will be greatly expanded. It might be well to point out here that a similar bus was purchased several years ago by the Providence Tuberculosis League and it has done much of the pioneer work in mass Surveys in Providence. This unit also provides consulting nursing service in tuberculosis for the various nursing organizations throughout the state. It is also planned to conduct mass surveys in communities throughout Rhode Island. Such a survey is to be held shortly in Warren, with the cooperation of a committee of local people including business men, clergy, schools, clubs, etc.

The State Sanatorium is another unit of this division of tuberculosis control. It is situated in the town of Burrillville at Wallum Lake, twenty-five miles from Providence. It has been in existence since 1905 and provides sanatorium care for all forms of tuberculosis, and all ages are admitted by application to the superintendent. It has a rated bed capacity of 611 of which adults beds comprise 548, including 13 beds on the surgical ward. There are 63 beds for children and although in recent years the demand for children's beds has been scant, in the latter half of 1946 and early 1947 there has been an increased number of admissions to this ward. This has occurred in spite of the fact that it is believed in some quarters that tuberculosis in children has been on the decline.

The total patient census at this writing is 355. We have a list of 35 awaiting admission. Beds are unoccupied because there is a critical lack of trained nursing help. Since the majority of patients seeking admission to the sanatorium require bedside care, there is no point in admitting patients and then not being able to give proper care with trained personnel. The dietary department has been seriously crippled by the shortage of trained help resulting in great difficulties in proper food service.

continued on page 288

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Planning—not luck—is responsible for the pure, crystal-clear solution of NEO-IOPAX for urography. Every precaution known for obtaining a sterile fluid, completely free from foreign particles, is taken with this compact medium during its production. And when NEO-IOPAX is ampuled it must pass before a corps of specially trained inspectors whose sole task is to detect and reject any solution containing the least visible trace of extraneous matter.

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DIVISION OF TUBERCULOSIS CONTROL

continued from page 286

The Sanatorium is fairly well equipped to provide all modern methods in the treatment of tuberculosis. It has a resident medical staff and complete facilities such as clinical laboratory, x-ray, pharmacy, occupational therapy, social service, dental service, physiotherapy, rehabilitation, library, and recreational facilities for patients. It has a school for children up to 12 years of age. For the older group educational facilities are rather sketchy but there is hope of enlarging this scope of this work in the future. In 1946 there were 278 admissions to the sanatorium with 55 per cent of the patients in the far advanced stage of tuberculosis. There were 30.9 per cent in the moderately advanced stage and only 9.3 per cent in the minimal stage. When we estimate that about 70 to 80 per cent of far advanced cases are dead in five years, it does not present too pretty a picture.

Artificial pneumothorax is the most used form of treatment. About half of the patients receive this form of therapy. A total of 15,374 pneumothorax refills were given in 1946. Pneumoperitoneum was given to 26 patients. Thoracic surgery such as thoracoplasty, pneumolyses, etc., were done to a total of 135 procedures. Bronchoscopy is being done more routinely in all sanatoria because of increasing knowledge of endobronchial tuberculosis. At Wallum Lake 157 bronchoscopies were done last year. The Sanatorium has an active visiting staff for the various specialties such as orthopedics, genito-urinary, eye, nose and throat, etc. There is also an active outpatient service for those patients who need pneumothorax refills and are unable to obtain them close to home. It is hoped that more refill centres will be established in other parts of the state. The facilities of the sanatorium are available to private physicians who may want help in their chest problems. Last year 708 patients were referred for this service.

The division of Tuberculosis control works closely with other related agencies in helping solve the tuberculosis problem. Members of the staff are available for lectures and talks before medical and lay groups. It is our hope that with the improvement in the help situation the Division may be able to rebuild its fences and carry on more efficiently not only in improving present services but to expand facilities so that a first class chest service may be made available to all who need it.

Members of the medical profession, hospital association and allied agencies are most cordially invited to visit the sanatorium and acquaint themselves with with what it has to offer.

DISTRICT SOCIETY MEETINGS

BRISTOL COUNTY MEDICAL ASSOCIATION

A meeting of the Bristol County Medical Association was held on Tuesday, March 18, at 9 p. m. in the Bristol District Nursing Association offices with Dr. Marcius Merchant presiding.

The Secretary read the minutes of the previous meeting and reported that the Council and the House of Delegates of the Rhode Island Medical Society had approved of the chartering of the Bristol County Medical Association as a component unit of the State Medical Society.

The President introduced Mr. John E. Farrell, Executive Secretary of the Rhode Island Medical Society. Mr. Farrell expressed the procedures necessary for the drafting of a Constitution and set of By-Laws for the Association to be consistent with the regulations of the State Medical Society under which the charter has been granted. He explained in detail the provisions of a proposed constitution and by-laws and he recommended that a Councillor and Delegate be chosen to represent the Association at the meetings of those bodies in the near future.

Dr. Frank A. Merlino of the State Tuberculosis Department was introduced by the President and he showed two motion pictures outlining procedures for mass X-ray programs in industrial plants and in hospitals. Dr. Merlino also reported on the program that has been carried forward by the Tuberculosis Division of the State Health Department in Bristol County.

After the showing of the motion pictures the business meeting of the Association was resumed and there was discussion of plans for an annual dinner to be held some time in June.

A vote was taken for a Councillor and a Delegate to the State Medical Society and Dr. Arcadie Giura was named Councillor and Dr. Hubert Holdsworth was named Delegate.

The other officers of the Association previously elected are as follows:

President.....MARCIUS MERCHANT, M.D.
Vice President.....ULYSSE FORGET, M.D.
Treasurer.....C. PAUL BRUNO, M.D.
Secretary.....SAMUEL D. CLARK, M.D.

The meeting adjourned at 11 p. m.

Respectfully submitted,

SAMUEL D. CLARK, M.D.,
Secretary

NEWPORT COUNTY MEDICAL SOCIETY

The annual meeting of the Newport County Medical Society was held at the Newport Hospital on January 28, 1947. The meeting was opened at 9:05 p. m. with Dr. Alfred M. Tartaglino presiding.

The minutes of the November meeting were read and approved.

A communication from the Executive Office of the Rhode Island Medical Society called attention to the resignation of Dr. Philip S. Geller from the Rhode Island Medical Society was read and placed on file.

In response to a letter from Dr. Charles L. Farrell, in reference to an essay contest for school children, a discussion was held. Dr. Norman M.

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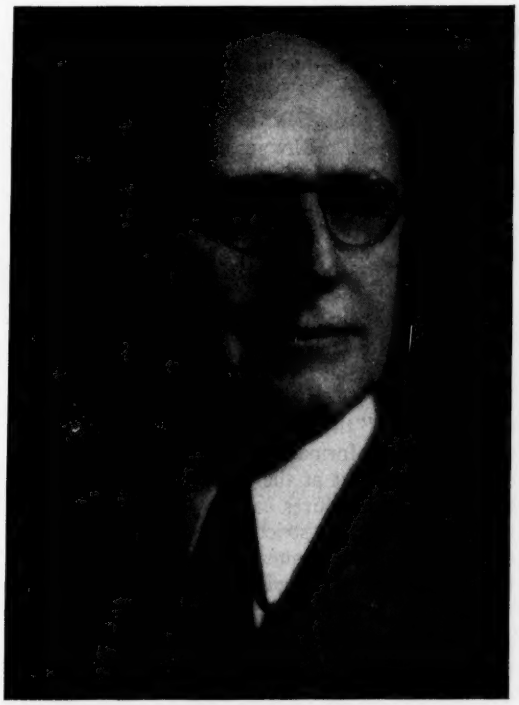


MARCIUS H. MERCHANT, M.D.
First President
Bristol County Medical Association
1947

NEWPORT COUNTY SOCIETY MEETING

continued from preceding page

MacLeod stated that he felt that the school authorities were not particularly in favor of holding such contests and the motion of Dr. Samuel Adelson, to appropriate money for a prize for such a contest, was withdrawn.

A letter was presented by Dr. Louis E. Burns from Dr. Michael F. Walsh, Director of Instruction in the Newport School Department regarding the supplying of a visiting teacher for children confined to their homes by illness. He also requested an opinion on the advisability of immunizing children against diphtheria, prior to school entry. A motion was made by Dr. Norman M. MacLeod to send a letter to the school committee requesting that a visiting teacher be supplied for children confined to their homes by illness. Motion was seconded by Dr. Samuel Adelson and passed. A motion was made that the letter be sent to the school authorities, the local board of health, and the state board of health recommending that legislation be enacted to make diphtheria immunization a prerequisite to school entry.

The following slate of officers was then elected for the ensuing year:

President.....ALFRED M. TARTAGLINO, M.D.
1st Vice President.....WILLIAM A. STOOPS, M.D.
2d Vice President.....PHILOMEN P. CIARLA, M.D.
Secretary.....HENRY W. BROWNELL, M.D.
Treasurer.....NORBERT U. ZIELINSKI, M.D.
Delegates.....LOUIS E. BURNS, M.D.
JAMES C. CALLAHAN, M.D.
Councillor.....SAMUEL ADELSON, M.D.
Censors.....NORMAN M. MACLEOD, M.D.
JOHN A. YOUNG, M.D.

The speaker of the evening, Dr. Meyer E. Saklad, Chief of the Department of Anesthesiology at the Rhode Island Hospital, was then introduced. Taking as his subject, "The Present Day Status of Anesthesia," the speaker gave an extremely interesting and informative talk on the organization of his department at the Rhode Island Hospital, the type of procedures carried on by the department, in addition to strictly anesthetic administration, the selection of anesthetic agents for various types of surgical procedures, and the advantages and disadvantages of the several agents.

Following his presentation, which was illustrated by lantern slides, there was a general discussion and question and answer period.

A collation followed.

Respectfully submitted,
HENRY W. BROWNELL, M.D.,
Secretary

PROVIDENCE MEDICAL ASSOCIATION

The meeting of the Providence Medical Association called for Monday, February 3, 1947, was a joint meeting with the Rhode Island Medical Society.

The meeting was called to order by Dr. Herman C. Pitts, President of the Rhode Island Medical Society, at 8 p. m. Dr. Pitts reported that there would be a brief meeting of the members present who are members of the House of Delegates, immediately upon the adjournment of the meeting. He also reported that the Woman's Auxiliary would hold an organization meeting at the Medical Library on Wednesday, February 5, at 3 p. m., and he urged that members request their wives to be present.

Dr. Pitts introduced as the first guest speaker of the evening Dr. Lewis C. Schaffey, Professor of Obstetrics and Gynecology at Jefferson Medical College and Hospital, in Philadelphia. Dr. Scheffey spoke on the subject, "The Role of the General Practitioner in the Early Diagnosis of Pelvic Cancer."

The two major errors in diagnosis are the reticence of women and the indifference of the family doctor.

In carcinoma of the pelvis he stated that the uterus is the most common site with ovaries next and vagina and tubes third.

Early diagnosis can be made by careful history, attention to cases of long standing therapy and long standing indigestion; adequate means of examining the pelvis; and repeated periodic examinations.

He stated that in Philadelphia cases are studied to see where the slip was, then the doctor is called in and goes over the case. He then showed slides demonstrating the various stages of carcinoma of the uterus. He then showed slides of various phases of vaginal smears and smears showing cancer cells. These vaginal smears made the correct diagnosis in 80 per cent of the cases examined.

Dr. Guy W. Wells, President of the Providence Medical Association, introduced the second guest speaker of the evening, Dr. Chester M. Jones, Clinical Professor of Medicine at Harvard University and Physican at the Massachusetts General Hospital. Dr. Jones spoke on, "The Diagnosis and Treatment of Liver Disease, With Special Reference to Liver Biopsies."

The diagnosis of liver disease is now made in definite terms of what is going on in the living liver and this gives us clues as to treatment.

In many instances laboratory studies cannot tell us what is going on at the time we are treating the patient. With liver biopsy treatment will be more simple rather than complicated.

continued on page 294

Eminent critic . . . dietary dub!

At meal time his renowned judgment deserts him. Eating only the food he likes, a choice of notably limited range, he thrice daily produces a burlesque on proper nutrition. Inevitably, this perennial first-nighter makes his entrance into some physician's reception room—the victim of a self-made, borderline vitamin deficiency. In the same cast, you will find other familiar types. Included in it are the ignorant and indifferent, people "too busy" to eat properly, those on self-imposed and badly balanced reducing diets, excessive smokers, food faddists and alcoholics, to name a few. First thought in such cases is dietary reform, of course. Along with that, a dependable vitamin supplement may well be in order. When you prescribe an *Abbott* vitamin product, you are assured that the patient will receive the full vitamin potencies intended. Your pharmacy carries a complete line of Abbott vitamin products in a variety of dosage forms and package sizes, and will be pleased to fill your prescriptions. ABBOTT LABORATORIES, NORTH CHICAGO, ILLINOIS.

SPECIFY

Abbott Vitamin Products

PROVIDENCE MEDICAL ASSOCIATION

concluded from page 292

Liver disease is now treated by replacement therapy—proteins, choline, vitamins, etc. The liver cells form albumen for the blood. Liver disease is treated with albumen—this gives diuresis and ascites disappear.

In acute intrahepatic disease the whole count can go up to 30,000 and the temperature is elevated too. Infectious hepatitis is a virus disease caused by food or by plasma infusion. The onset is abrupt with fever, jaundice and leucopenia. It is a self limited disease. Most do well.

Dr. Jones then showed excellent pathological slides obtained by punch biopsy showing various stages of liver disease. He then described the technique for performing liver biopsy. If the liver is enlarged it is done anteriorly while the patient holds his breath. If the liver is small it is done posteriorly during deep expiration. In over 200 cases, only one fatality occurred.

Attendance, 172.

Collation was served.

Meeting adjourned at 10:20 p. m.

Respectfully submitted,

DANIEL V. TROPPOLI, M.D.,
Secretary

CLINICOPATHOLOGICAL CONFERENCE

concluded from page 284

the pericardial cavity or into the mediastinum. In this case the rupture occurred in the abdominal aorta.

Sometimes the new formed cavity ruptures back into the aorta lower down and it may then heal, leaving a smooth-lined channel through which the blood flows: double aorta.

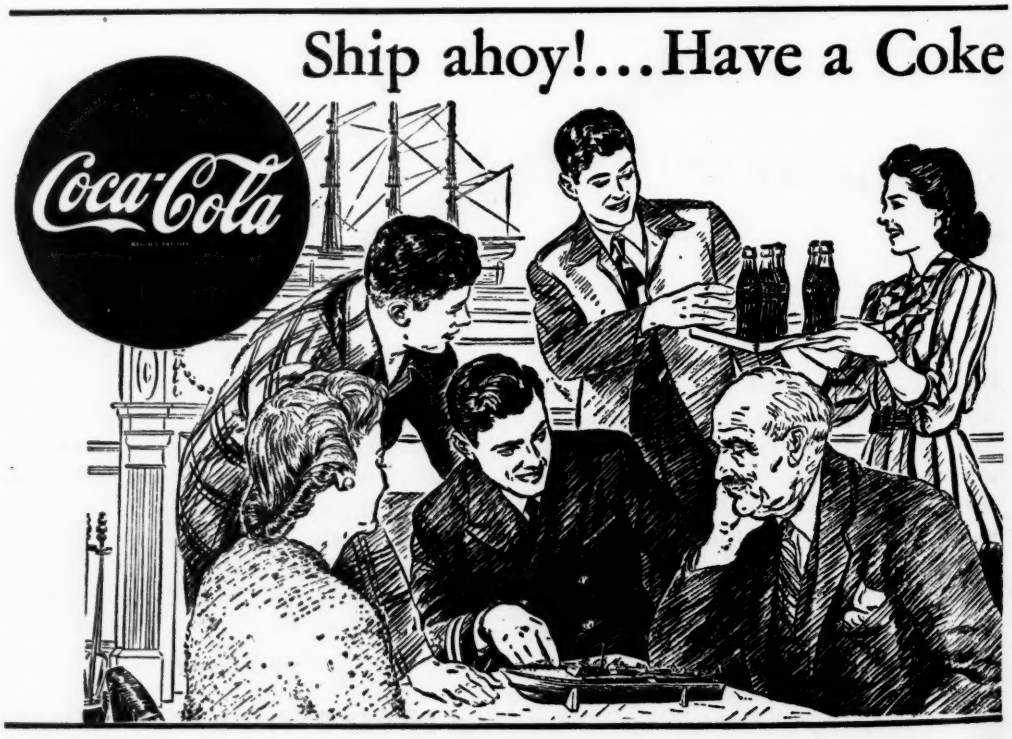
In trying to correlate the pathology with the clinical story there are two things that might be suggested. (1) The history of hemorrhage from the gastro-intestinal tract must be discounted. No such bleeding was observed during nine days in the hospital. The patient's history must be regarded as unreliable. (2) The pain deserves more attention. It was of sudden onset and from then on was intractable. Dissecting aneurysm is one of the causes of such pain."

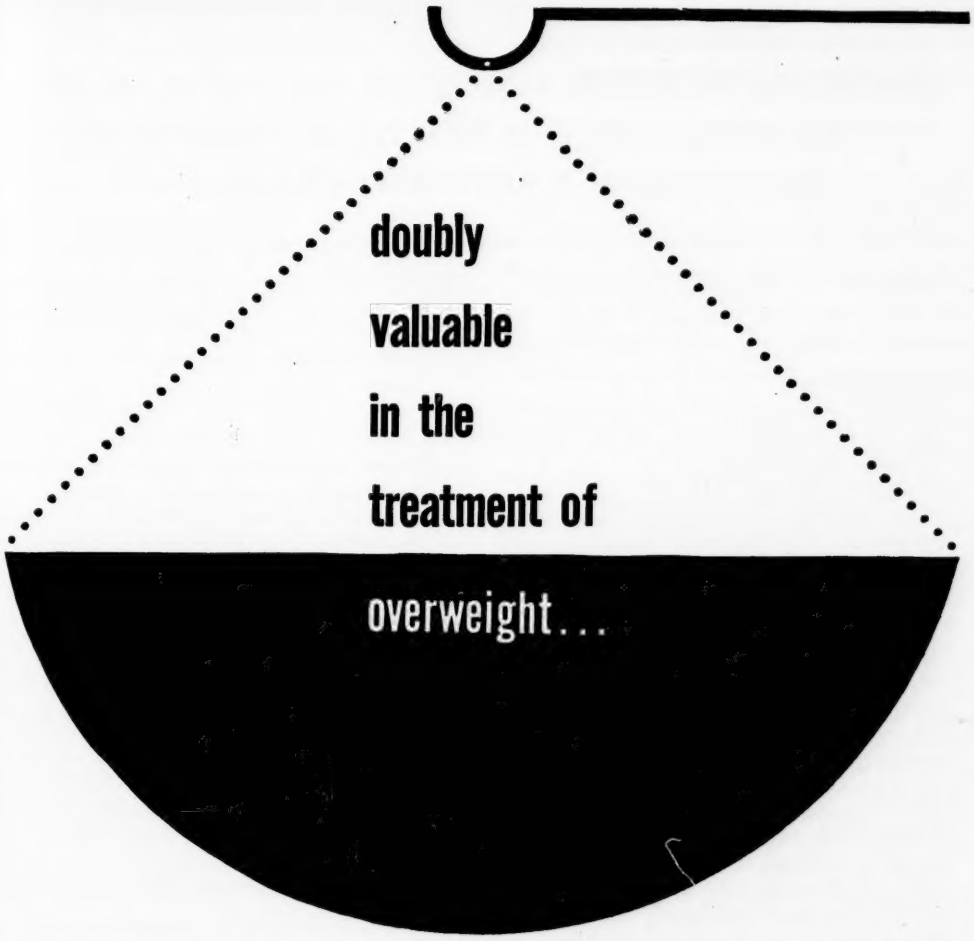
NEXT MEETING . . .

Providence Medical Association

MONDAY, MAY 5

at the Medical Library



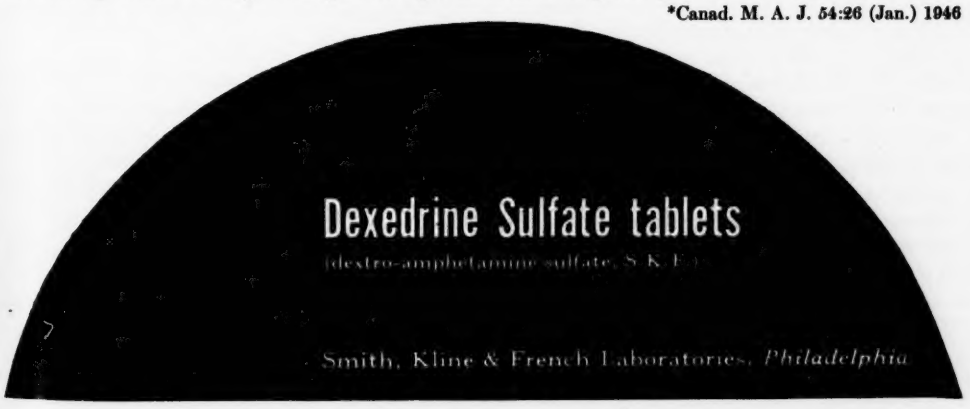


In a recent clinical study, Hawirko and Sprague* found that *Dexedrine* (*d*-amphetamine) exerts two beneficial actions in the treatment of overweight:

1. It depresses the appetite "sufficiently to enable the patient to follow the diet closely without feeling it too great a burden".

2. Its unique central nervous stimulant effect combats the feeling of "discouragement and irritability which usually accompanies rigid adherence to prolonged use of a low calorie diet".

*Canad. M. A. J. 54:26 (Jan.) 1946



ABSTRACTS FROM THE REPORT ON THE RHODE ISLAND STATE DEPARTMENT OF HEALTH AS PREPARED BY GRIFFENHAGEN & ASSOCIATES OF CHICAGO*

SUMMARY OF RECOMMENDATIONS

The major recommendations embodied in this report can be summarized as follows:

As to Organization:

1. Reorganize the existing 16 divisions and other agencies in the department of health into the following seven divisions:
   Division of Administration. Division of Communicable Diseases. Division of Laboratories. Division of Environmental Sanitation. Division of Maternal and Child Health. Division of Public Health Nursing. Division of Tuberculosis.

   Under this organization each of the chiefs of the divisions would constitute the staff of the director of health on matters of internal policies and plans, liaison with other agencies, and coordination of activities. The existing advisory council, renamed the public health council, would be given advisory and hearing functions, without administrative or executive power, in addition to its present function of aiding the director of health on external relations and in the formation of rules and regulations, and broad department policies.
2. Activities of existing agencies in the department would be disposed of as follows:
   Certain activities would be discontinued. Certain activities would be transferred out of the department of health to other state agences. Certain existing activities would be expanded. Certain new activities would be added.

   The recommended reorganization plan, embodied in the text of the report, indicates the allocation of all retained, expanded, and new activities among the seven divisions.
3. Make the position of director of health a full-time career position under civil service. with a five year term at a salary of $10,000 per annum. Prohibit private practice of medicine by the director of health.
4. Abolish the position of legal counsel.
5. Replace the existing division of business management with a division of administration, headed by a qualified top specialist in public health administration who would also be the deputy director of health. This division would deal with district or local public health services, public health education, vital statistics, professional regulation, and intra-department administrative services. The existing divisions of business management would then be redesignated the administrative services section of the division of administration.
6. Create a position for a qualified public health educator who, under the deputy director of health, would coordinate all matters of public health education, public relations, and publicity for the department.
7. Provide additional facilities and personnel for vital statistics activities and particularly for essential research in vital statistics.

As to Existing Units in Internal Organizations:

8. Abolish the cancer prevention clinic and bureau of cancer control. The cancer reporting laws should be repealed. The residual function of the existing bureau of cancer control concerning authorization of hospitalization for indigent cancer patients should be made a responsibility of the proposed deputy director of health.
9. Transfer the toxicology laboratory out of the department of health.
10. Abolish the following existing laboratories, the pathology laboratory, food and drug laboratory, and the diagnostic chemistry laboratory together with all of their services except the analysis of foods allegedly unfit for human consumption.
11. Centralize all existing independent laboratories and all activities pertaining to the distribution of biologicals, sera, drugs, and pharmaceuticals in the division of laboratories.
12. Establish a research laboratory.

* Taken from the complete report of the Commission to Re-Examine the Field of Governmental Operations, the Cost of Governmental Services, and the Tax Structure of the State, February, 1947.

13. Transfer commercial food frauds activities from the division of food and drug control to some agency outside the department of health and then eliminate the division of food and drug control by intra-departmental reallocation of all other functions of the division.
14. Expand the industrial hygiene program.
15. Give increased emphasis on the importance of the public health nursing function to the public health program by changing the name of the bureau of public health to the division of public health nursing.
16. Abolish the bureau of recreational safety.

As to Policies and Procedures:

17. A full study should be made of all laws pertaining to professional and trade regulatory bodies, with a view to revising such laws so as to strip all such bodies of administrative power, and to limit their authority to examination and approval of candidates, the hearing of complaints of violations of license restrictions, and advice to the director of health. Exclusive power should be vested in the director of health to issue, suspend, or review licenses for all professions or trades now under the jurisdiction of the department, as well as the sole right to make all sanitary inspections.
18. Vest exclusively in the department of health jurisdiction over milk control by eliminating the overlapping function of the department of agriculture with respect to milk control.
19. Transfer the authority to license maternal hospitals and homes from the children's service division of the department of social welfare to the division of maternal and child health of the department of health.

As to Internal Policies and Procedures:

20. Provide for compilation and publication of annual reports of the department for the years subsequent to 1940. Provide also for prompt compilation and publication of all future annual reports of the department.
21. Give specific duties to the advisory council and make provision for frequent and regular meetings of the advisory council. All practicable measures to strengthen the advisory council should be taken.
22. Develop and publish standard procedures on matters pertaining to administrative services, internal organization, policies and procedures, and provide a method for keeping such procedures up-to-date for the information and guidance of department employees.
23. Hold frequent and regular meetings of the staff of the director and encourage the staff to become an effective instrument for aiding the director in coordinating the activities of the department and assuring positive action on department plans.
24. Provide means for assuring more effective planning of the broad, overall program of services to be rendered by the department.
25. Provide additional space and personnel for the department library.

As to Personnel:

Salaries in the department of health are inadequate to permit the divisions to be fully staffed. No detailed conclusions on salaries can be reached without a full study of comparative salary scales which would require considerable more time than has been made available for the present study. A spot check of salaries in individual positions indicated that salaries in the department of health, in the instances selected, ranged from 10 per cent to 33⅓ per cent below comparable salary scales in other states.

26. Firm administrative action should be taken to discourage indicated abuses of the sick leave privilege and consideration should be given to the imposition of a limitation on the total amount of permissible accumulation of vacation leave as a possible means of discouraging abuse of the sick leave privilege.

As to Local Public Health Services:

27. Provide for the extension of the existing bedside nursing care furnished by public health nurses assigned to the department of health to those few towns where no suitable local facilities are available.
28. Centralize all local public health services in the State of Rhode Island under the direction and control of the director of health as a means of securing uniform services and service of better quality than are now available, notwithstanding the fact that there is scant hope of affecting any reduction in the total amounts now expended by both the state and the local governments and local public health services because the present expenditures are so far below the recognized amounts required to provide minimum basic services.

    Provision should be made in such centralization for participation by local municipalities in the cost of local public health service either on a basis of a flat rate of $1 per capita or on a basis of an even split of the total costs, the municipalities share being apportioned according to population.

continued on next page

It is estimated that the proposed centralization of local public health services will require an expansion of the existing field staff of the department of health from 32 to 216 people. It is further estimated that the cost of providing this staff will be about $550,000 a year and that administrative overhead and special local program costs will be determined by the policy adopted with regard to the scope of services to be rendered.

As to Facilities and Equipment:

29. Provide additional office space for the activities of the department of health. Provide additional required equipment as indicated.

* * * * *

Scope of the Public Health Problem in Rhode Island:

The total population of the State of Rhode Island is about 725,000, but the greater majority of this population is concentrated in the extreme northeasterly section of the state. About 52 per cent of all persons gainfully employed in the state work in industrial plants.

There were 39 units of government; 32 towns of varying sizes and 7 cities: Providence, Pawtucket, Woonsocket, Cranston, Newport, Warwick, and Central Falls. While each town and city has a health officer, only the cities of Providence and Pawtucket maintain full-time health departments and only five other communities provide any substantial local public health services. There are five counties in the state but they play no significant part in the government.

Geographically, the State of Rhode Island is very compact and it is possible to reach almost any part of the state from any other part in about an hour's time.

The small size and high population density make Rhode Island ideally suitable for centralized public health administration and should permit the state to excel in the quantity and quality of public health services.

Functions and Activities:

The responsibility of the state in matters of public health rests upon a broad concept of the meaning of public health. Lacking this, there can be no sharp focus of effort on public health problems, and the organization established to protect the public health may find its force dissipated in medical care of the sick and other activities of great intrinsic worth or popular appeal which have little or no relation to public health.

Public health services consist of the application of the services of preventive medicine through government for social ends. Public health is concerned with conditions, usually arising out of personal conduct or the use of property, which jeopardize the health of the public at large. Private health, on the other hand, is concerned with conditions that affect the health of particular individuals but constitute no threat to the health of the general community. Seldom, if ever, can individual action abate a threat to the health of the public at large and the state consequently exercises its inherent powers as a sovereign to control such conditions either by the exercise of the police power or through education of the public.

The present functions of the Rhode Island department of health are:

1. To provide a complete public health program at the state level.
2. To take all action necessary for the protection of the lives and health of the citizens of the state, regardless of specific provisons of statutes.
3. To correlate the public health activities of all federal, state, municipal, and private agencies in so far as they deal with matters of public health in the State of Rhode Island.

* * * * *

Weaknesses in Existing Organization Structure: There are two principal weaknesses in the existing organization structure of the department of health.

The first major weakness in the existing organization structure is the presence, in the department of health, of agencies having functions, in whole or in part, which do not pertain to public health. The bureau of recreational safety is an example. Such extraneous functions, in so far as may be practicable, should be eliminated or transferred, as the situation requires.

The second major weakness is the presence of too many subordinate divisions and other agencies for effective administrative control. In place of a strong, well integrated department, capable of executing and administering broad plans for public health services, there exists a collection of semi-autonomous agencies subject to little overall guidance and direction. Although the director of health is required by law to administer the department, the fact that he has 20 division heads and key people reporting to him makes it virtually impossible to achieve effective results. A regrouping of existing agencies into as few major divisions as possible is clearly indicated.

* * * * *

Proposed Organization Structure of the Department of Health:

Regrouping of Existing Divisions and Agencies: It is recommended that the existing agencies of

continued on page 301

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HEALTH DEPARTMENT STUDY

continued from page 298

the department of health be regrouped into seven divisions as follows:

Division of Administration. Division of Communicable Diseases, Division of Laboratories. Division of Environmental Sanitation. Division of Maternal and Child Health. Division of Public Health Nursing. Division of Tuberculosis Control.

Staff of the Director of Health: The chiefs of each of the seven proposed divisions should, in addition to their administrative duties, serve as the staff of the director of health. As such they should be concerned with matters of internal policy, including coordination and integration of the activities of the divisions; the allocation of available funds to the various department activities in accordance with the requirements of the overall department plan and program; and coordination with state, Federal, and other official agencies, and with private agencies, on execution and administration of plans and programs for public health services.

Proposed Division of Administration: The contemplated functions of the proposed division of administration are considerably broader than those of the existing division of business management, although the functions of the latter body are intended to be assigned to the proposed division. The chief of the proposed division of administration should be a qualified top specialist in public health administration and would be in effect the deputy director of health.

This proposed division would be charged with responsibility for the following activities:

1. Provision of district or local health services. 2. Public health education. 3. Administration of the cancer control program. 4. Compilation and analysis of vital statistics. 5. Professional regulation and issuance of licenses. 6. Provision of central administrative services for all agencies of the department of health, except the proposed division of tuberculosis. 7. Maintenance of the department library.

The division would operate through the following sections:

District and local public health services: This section would perform the functions now generally discharged by the division of district public health administration.

Public health education section: This section would be responsible for all matters of public relations and for executing plans for education of the general public in all public health matters. At the present time this function is scattered among the different existing agencies with a consequent loss of effectiveness. All publicity emanating from the department should be cleared by, and issued from, this section.

This section would also be responsible for administration of those functions of the present bureau of cancer control which are retained.

Vital statistics section: This section would be charged with compilation and maintenance of all records of births, deaths, and marriages currently charged to the division of vital statistics. In addition, it would produce necessary statistical data from such records.

Professional regulation section: This section would perform all of the functions of the present division of professional regulation with the board of hair-dressing merged therein.

Administrative services section: This section would perform the administrative services of a budgeting, accounting, personnel, and other general administrative nature now furnished by the division of business management, provide central mail and messenger services, and would maintain the department library.

Proposed Division of Communicable Diseases: The proposed division of communicable diseases would perform all of the functions of the existing

continued on next page

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HEALTH DEPARTMENT STUDY

continued from page 301

division of communicable diseases and would function through a venereal disease control section and an epidemiology section.

Proposed Division of Laboratories: The proposed division of laboratories would perform all of the functions of the existing division of laboratories and the laboratory functions of the existing divisions of sanitary engineering and industrial hygiene. Distribution of sera, vaccines, and drugs, now handled by the division of communicable diseases and the division of food and drug control, would be assigned to the proposed division of laboratories.

The proposed division of laboratories would be organized with a section for each separate laboratory, a section for the distribution of drugs, sera, and vaccines, and an office administration section. Certain existing laboratories and laboratory services, as described more fully later in the report, would be abandoned.

Proposed Division of Environmental Sanitation: The proposed division of environmental sanitation would include all of the functions currently performed by the existing divisions of sanitary engineering and industrial hygiene, other than laboratory services, and the retained functions of the division of food and drug control.

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The proposed division would function through the following sections:

Water and milk section; Sewage and shellfish section; Sanitary inspection section; Industral hygiene section.

The retained functions of the present division of food and drug control would be assigned to the proposed sanitary inspection section. The functions of the present division of industrial hygiene, other than laboratory functions, would be performed by the proposed industrial hygiene section. The present functions of the existing sections of the present division of sanitary engineering would be performed by the proposed sections of similar designation, except that the laboratory functions would be transferred to the division of laboratories.

In so far as the industrial hygiene section deals with the medical detection of disease, there must be parallel responsibility between the medical director, industrial hygiene; and the public health engineer who heads the proposed division of environmental sanitation in order to avoid any possibility of a sharp conflict in professional interests. Development of a suitable working arrangement to this end is a tacit assumption in the proposal to combine the present division of industrial hygiene with the present division of sanitary engineering.

Proposed Division of Maternal and Child Health: The proposed division of maternal and child helath would perform all of the functions now exercised by the present division of maternal and child health, and services to crippled children.

Proposed Division of Public Health Nursing: The present bureau of public health nursing would be renamed and would constitute the proposed division of public health nursing.

Proposed Division of Tuberculosis Control: The existing division of tuberculosis control and the Rhode Island state sanitorium would be renamed the division of tuberculosis control.

Functions to be Eliminated or Transferred: Certain functions now exercised by existing agencies of the department of health would either be eliminated entirely or transferred out of the department under the proposed plan of organization. Such functions are described later in this report under a heading for each such agency.

Existing Units of Internal Organization of the Department of Health:

Office of the Director: The director, appointed by the governor for a term of two years with an annual salary of $6,000, is the chief executive officer of the department. While the position is considered to be a full-time job, the state cannot expect that any person appointed to this position will cut himself off from the possibility of return-

continued on page 304

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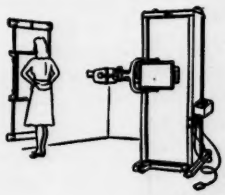

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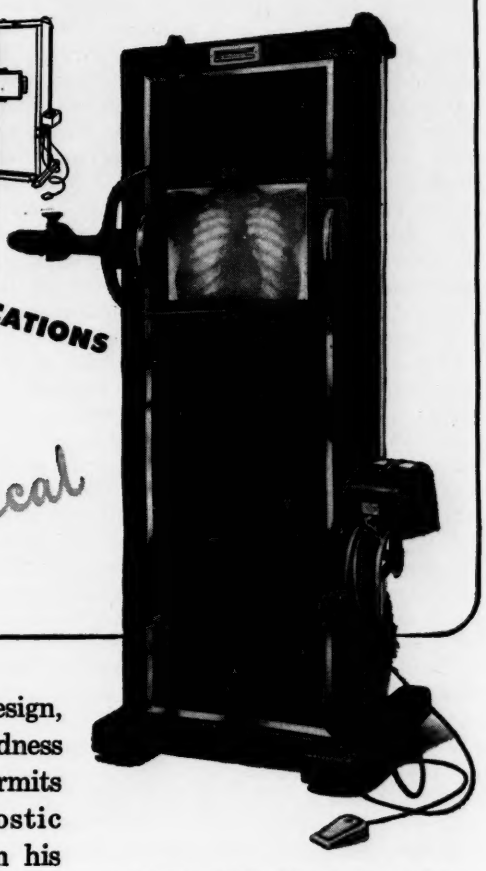

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HEALTH DEPARTMENT STUDY

continued from page 302

ing to private practice at the expiration of the term.

* * * * *

The director of health has great responsibility and his power to protect the public health, which is equally great, in many respects exceeds the power of the courts of the state. The position is of such importance that a full-time head is indispensable. The task of safeguarding the health of the state is certainly as important as that of administering justice and should be compensated accordingly. Provision of a salary of $10,000 per annum (which is the same as the salary received by a justice of the superior court), an extension of the term from two to five years, and provision for appointment pursuant to the provisions of the classified civil service, should offer sufficient inducement to a qualified public health administrator to devote full time to the position. Until such adjustments are made, it can be expected that any person appointed director of health will continue to consider his personal interests even though they may only be satisfied at the expense of the public interests. It is recommended that the existing statutes be amended to provide that the position of director of health shall be a full-time position under the provisions of the classified civil service, that all private practice of medicine be excluded, that the term be extended to five years, and that the salary be increased to $10,000 per annum.

The director of health is charged not only with formulating plans for protecting the public health but also with executing and administering such plans. At the present time there does not appear to be that degree of planning and coordination of execution and administration of plans, that is believed to be essential to securing the most effective results. The recommendations with respect to organization structure, increase of salary, civil service appointment, and longer term of office of the director are considered essential prerequisites to any improvement in this respect. It should be noted, however, that firm and vigorous leadership is equally essential.

* * * * *

Division of District Public Health Administration: Field public health services are rendered by three district units, each of which is autonomous, and which together comprise the so-called division of district public health administration under the immediate direction of the director of health. These units render local public health services but the services are not uniform in each community nor are they fully effective in meeting the minimum basic requirements for such services. The district units furnish only venereal disease control services to the cities of Providence and Pawtucket. Most of the local public health services in the city of Woonsocket are furnished by a district unit. Public health services are provided for other cities and towns in varying degrees according to local demand for services, local cooperation, and available state funds.

* * * * *

Division of Professional Regulation: The division of professional regulation was established in 1944 by the director of health, to discharge the statutory authority vested in the director of health with relation to various professional and trades regulatory agencies, and to render central services for such agencies. There are 13 boards and one committee included in the division. The boards vary in size from three to five members. The members in most cases are appointed by the director of health with the approval of the Governor, but the Governor appoints the members of the state board of plumbing examiners. Terms of office are for the most part indefinite although specific terms are provided for members of five of the boards.

The committee on nursing education consists of ten members appointed by the director of health for overlapping terms of five years and the director of health, ex-officio.

Each board has the power to examine, license, and register candidates for the particular profession or trade concerned. In some cases, however, particular boards have been given independent administrative power such as the right to revoke or suspend licenses. The law creating the board of barber examiners provides that sanitary inspections of barber shops can only be made by a licensed barber. These and similar provisions of law are a threat to democratic government, since the power is not given by law for the good of the public but for the good of special interest groups. A full study should be made of all of the laws pertaining to these professional and trades regulatory boards with a view to limiting their authority to examination and approval of candidates, the hearing of complaints of violations of license restrictions and ad-

continued on page 307

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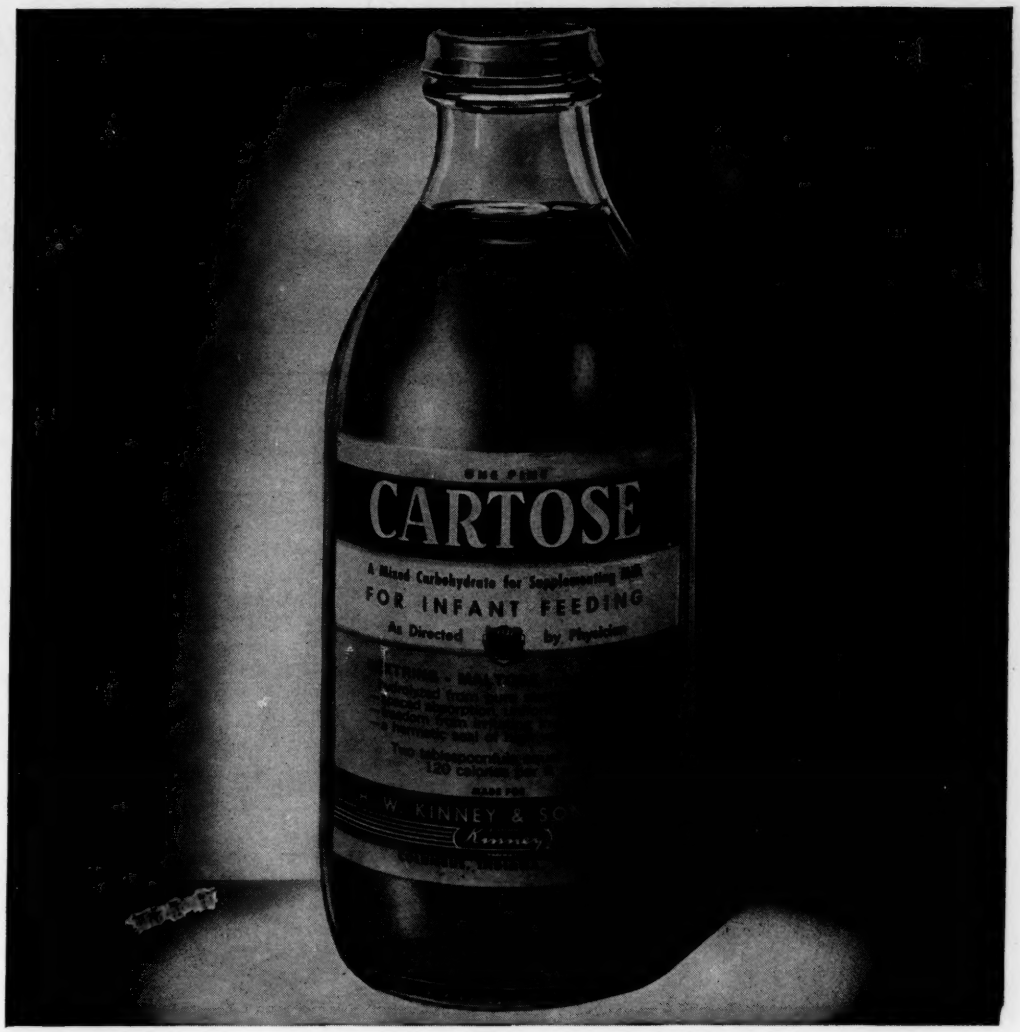

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HEALTH DEPARTMENT STUDY

continued from page 304

vice to the director of health. The director of health, however, should have the power to issue, suspend or revoke al licenses as well as the power to make all sanitary inspections.

* * * * *

Division of Communicable Diseases: The function of the division of communicable diseases is to prevent and suppress the spread of communicable diseases. Its activities include:

1. Collection of morbidity reports. 2. Cooperation with local health officials. 3. Investigation of sources and means of transmission of communicable diseases. 4. Administration of a venereal disease control program. 5. Health education in conjunction with communicable diseases.

* * * * *

The functions of this division are of such major importance to public health as to justify a separate divison for their discharge. The division, however, distributes various drugs in connection with its venereal disease program. This activity should be transferred to the division of laboratories which, under the proposed plan of organization, would be the central distribution agency for all sera, drugs, and vaccines.

Bureau of Cancer Control: The bureau of cancer control was established in 1942 pursuant to statute. Its functions, as prescribed by the statute, are:

> "to formulate a plan for the care and treatment of indigent persons suffering from cancer, to establish and designate standard requirements for the organization, equipment, and conduct of cancer units or departments in general hospitals of this state . . . and to formulate and put into effect an educational plan for the purpose of preventing cancer, and for the purpose of aiding in the early diagnosis of cancer, and for the purpose of informing hospitals and cancer patients of the proper treatment."

The bureau of cancer control maintains statistical files of all cases of cancer reported in accordance with state law, conducts a cancer prevention clinic; furnishes hospital care for indigent persons suffering from cancer and conducts, to the limited extent possible with its present staff and funds, an educational program on cancer. The program is a concession to popular interest and the force of propaganda rather than an expression of a useful administrative or preventive service.

The cancer prevention clinic, as currently operated, is conducted one day a week in Providence. This is a general physical screening for women only. If a cancer is detected, the patient is referred to one of the tumor clinics operated by the private hospitals without benefit of state aid. It is expected that persons attending the cancer prevention clinic

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HEALTH DEPARTMENT STUDY

continued from preceding page

will report once every six months for an examination. Since each clinic can accommodate only 15 patients a day, it is obvious that the clinic can examine only 780 cases in the course of a year and the the policy of conducting examinations twice a year limits the services of the clinic to 390 women. Examinations are arranged by appointment and the clinics are now booked solidly until August 1947. It is obvious that the clinic, under this arrangement, serves an extremely limited purpose which hardly justifies its existence.

Apart, possibly, from industrial cancers, the causes of cancer are still unknown. It is doubtful if the collation of information on cancer cases in Rhode Island can furnish a sufficiently broad statistical base to throw effective light on the causes of cancer. Consequently cancer statistics serve little or no purpose. The law requiring the reporting of such statistics should be repealed.

The present staff of this division consists of a statistician and a clerk. The director of health is the acting medical director. While this position provides for a salary of $4,000 a year, the state cannot reasonably expect to employ a qualified cancer specialist for less than $10,000 a year.

The program in its present form, apart from subsidies for hospitalization of indigent cancer patients, is believed to be more shadow than substance. During the fiscal year ended June 30, 1946 the bureau spent $8,485.61 of which $5,724 was for hospitalization and treatment of 105 indigent patients.

Until the basic public health services are fully met, no program of such limited public health application as cancer control should be adopted. It is recommended that the cancer prevention clinic be discontinued. The continuation of hospitalization for indigent cancer patients is a matter of state policy and provision might well be made for this purpose.

Division of Laboratories: The function of the division of laboratories is the performance of toxicological, pathological, food and drug, chemical, serological, and bacteriological examinations, and analyses to aid in the diagnosis and control of preventable diseases and related problems.

* * * * *

The pathology laboratory is engaged in making free pathological examinations for private hospitals and a limited number of physicians. There is no reason why the state should furnish free pathological examinations since they pertain to private health and not to public health. The pathology laboratory should be abolished.

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continued on page 310

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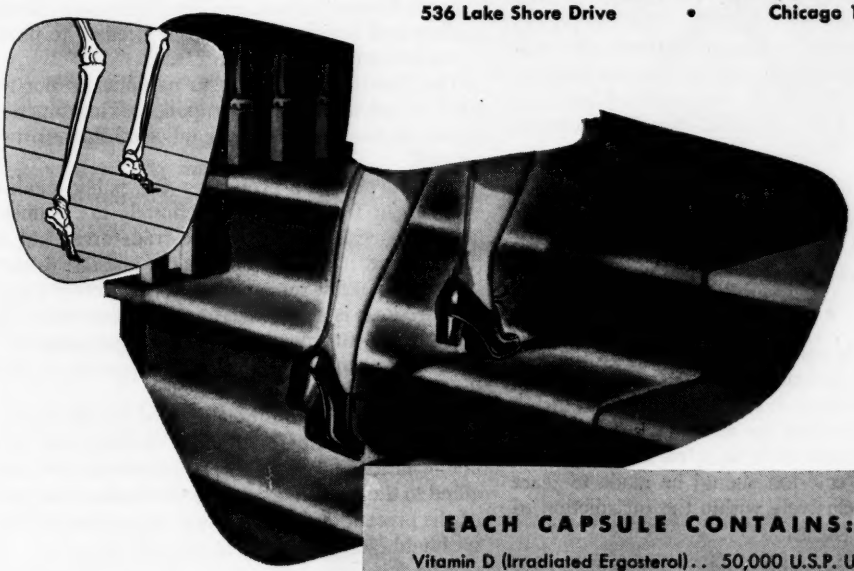

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(Equivalent to 3 mg. of synthetic Alpha Tocopherols)

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DARTHRONOL

For the Arthritic

HEALTH DEPARTMENT STUDY

continued from page 308

The diagnostic chemistry laboratory is engaged in making free blood chemistry examinations, urinalyses, and differential blood counts as a convenience for physicians in the immediate vicinity of the laboratory. This is not a public health function. It is estimated that this laboratory does 10,000 blood chemistry analyses, 25,000 urinalyses, and 4,000 differential blood counts in the course of a year. If the laboratory were conducted as a private enterprise this amount of work would be equivalent, on the basis of commercial charges, to a gross business of $60,000. Of course, it does not cost the state anything like that amount to operate this laboratory. However, there is no reason why the state should provide free services, not related to public health, in any case and certainly not on the present scale on which these free services are rendered.

* * * * *

Division of Sanitary Engineering: The function of the division of sanitary engineering is to assure adequate environmental sanitation.

* * * * *

Milk control is complicated by the fact that the department of agriculture exercises jurisdiction over milk production on the farm and relinquishes jurisdiction only when the milk has left the farm. Such divided control tends to defeat the purpose of milk control. Provision should be made to place such control exclusively within the jurisdiction of the health department.

A laboratory is maintained by the division for the analysis of milk and water. There is no reason why any division should maintain laboratory services separate and apart from the division of laboratories, and it has already been recommended that this laboratory be transferred to the division of laboratories.

* * * * *

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Division of Food and Drug Control: The division of food and drug control was created in 1935 by combining the existing agencies, known as the division of narcotic drugs and pharmacies, and the division of foods and drugs. The general functions of the division are:

1. To prevent illicit use of narcotics and similar drugs and eliminate drug addiction. 2. To protect the public against commercial food frauds. 3. To protect the public against commodities unfit for human consumption. 4. To prevent the promiscuous sale of dangerous drugs and poisons. 5. To distribute biologicals for use in immunizations, and blood plasma to physicians and hospitals. 6. to issue licenses to pharmacists and drug dispensers.

The function pertaining to narcotics is not related to public health but to police. This function should be transferred to the office of the attorney general.

The function of protecting the public against commercial food frauds is definitely not a public health function and should be transferred out of the department of health. It is not possible to state specifically in this report where this function should be placed. It is suggested, however, that either the office of the attorney general or the department of agriculture would be a more appropriate a place than the department of health.

The function of protecting the public against commodities unfit for human consumption is a public health function. It is, however, so closely allied to the food and beverage sanitation functions of the present division of sanitary engineering that it should be transferred to that division.

The function of preventing the promiscuous sale of dangerous drugs and poisons is partly a police function and partly a public health function. It, too, is closely allied to the food and beverage functions of the present division of sanitary engineering and should be transferred to that division.

The function of distributing biologicals should be transferred to the division of laboratories. The function of issuing licenses should be transferred to the present division of business management.

* * * * *

Division of Industrial Hygiene: The functions of the division of industrial hygiene are:

1. To study the problem of industrial health and occupational diseases in industry. 2. To determine the effect of employment on public health. 3. To conduct educational programs on the problems of industrial health.

* * * * *

The activities of this division are closely related to the division of industrial inspection of the department of labor.

continued on page 313

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*Levine, S Z.: J.A.M.A. 128:283, May 26, 1945

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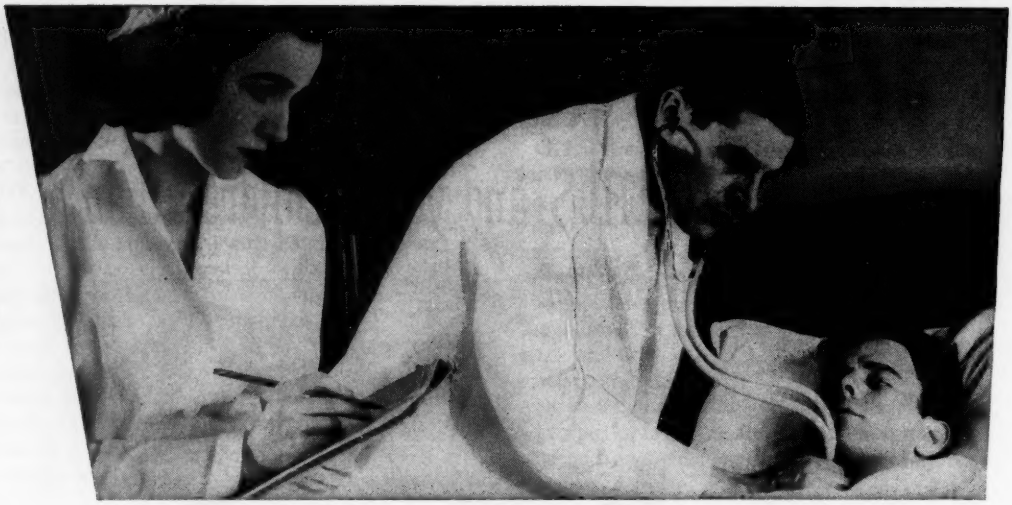

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HEALTH DEPARTMENT STUDY

continued from page 310

There are 3,300 industrial plants in the State of Rhode Island. These are concentrated for the most part in the northeastern section of the state. Many of the plants have industrial hygiene sections, and 165 industrial nurses are employed throughout the state. Over 52 per cent of all persons gainfully employed in the state are employed in industrial establishments.

Because of this predominating industrial influence, which effects such a large percentage of the people of the state, the program of the division of industrial hygiene should be expanded and made more intensive than it now is. It is recommended that four additional field workers be authorized to aid in expanding the program of this division.

The present program of the division is pretty well limited to matters of education and public relations. Since August 1946 no field surveys have been made by the industrial hygiene engineer.

The division maintains its own laboratory for the analysis for toxicity of samples of industrial gases, fluids, and solids. This function should be transferred to the division of laboratories.

The functions of the division of industrial hygiene and those of environmental sanitation are so closely related that they should be merged with the division of sanitary engineering provided that a suitable working arrangement can be made for parallel responsibility between the medical director and the public health engineer on matters dealing with medical detection of disease.

Division of Maternal and Child Health: The functions of the division of maternal and child health are to protect the lives of mothers, infants, and children; to suppress diseases of children; and to improve the health of young children. The division's activities are supported materially by Federal grants. The division administers these Federal grants and coordinates the conduct of various programs in the field by the district public health units. Included in its present programs are the following:

1. A rheumatic fever treatment program subsidized for the most part with federal funds. 2. Emergency maternity and infant care subsidized entirely with Federal funds. 3. A dental care program primarily conducted in Woonsocket with the aid of Federal funds. 4. Nutrition consultation services. 5. Child health conferences. 6. Pre-natal and post-natal care. 7. Immunization of pre-school and school children.

* * * * *

The principal weakness in the division's program is the limited scope of its application. Activities are not conducted on a state wide basis. Particular parts of one activity appear to be overstressed, as for example, the immunization program is almost wholly devoted to diphtheria immunization. Considerable attention is devoted to the rheumatic fever program, evidently because of available Federal grants, notwithstanding the fact that rheumatic fever is not a communicable disease and is therefore a matter of clinical medicine rather than a matter of public health.

The division appears to be overstaffed with clerical workers. With a reduction in the emergency maternal and infant care program it should be possible to reduce clerical staff.

Division of Services to Crippled Children: The division of services to crippled children is charged with the function of aiding crippled children and children suffering from conditions which lead to crippling. Its activities are related to its functions. Federal grants furnish about half of the funds for its activities. The functions of this division do not relate to public health, but it is questionable whether Federal funds would be made available if the functions were transferred to another state department and the field service force of the department of health is well suited for assisting in activites of this nature.

The division has 9 employees, two of whom are part-time. Three of the employees actually work exclusively on the rheumatic fever program for the division of maternal and child health.

This division appears to be doing effective work. The close relationship of its functions to those of the division of maternal and child care would justify the consolidation of these two divisions.

Bureau of Public Health Nursing: The functions of the bureau of public health nursing are to provide and supervise all public health nurses engaged in performing activities in the department of public health. Activities of individual nurses in the districts are, for the most part, general and not special. Supervision of district nurses is maintained through a district supervisor public health nurse in each of the district public health units and supervision of other nurses is maintained through the chiefs of those divisions to which special nurses are assigned.

* * * * *

Bureau of Recreational Safety: The bureau of recreational safety was established by the director of health in 1937 and charged with the function of providing free life saving, rescue, and first aid services at privately owned public beaches. The division of forests and parks of the department of agriculture provides similar services for state parks and beaches.

* * * * *

continued on next page

HEALTH DEPARTMENT STUDY

continued from preceding page

The bureau performs no public health functions. Since the division of forests and parks of the department of agriculture provides lifeguards for state operated beaches and parks, it is dubious whether this bureau in providing free lifeguard service for other than state beaches and parks serves a legitimate public function. Its functions should certainly be transferred to the division of forests and parks and they might will be eliminated entirely.

* * * * *

Program Planning: Little appears to have been done by the department of health in the way of planning a broad overall program of services. The availability of grants from the Federal government for specific purposes has been a factor of great influence in determining the existing program. In some cases this has enabled increases to be made in the staff but the application of this increased force hasn't been uniform throughout the state. Plans should be based upon the actual needs of the state and specific programs should meet those needs. Unless there is a clear plan based upon needs, there is a great danger that the program will be moulded by the availability of Federal funds regardless of whether or not the particular program for which Federal funds are available is of material importance to the state. Frequently, Federal funds in the beginning provide the entire support for a specific program and later the state is encouraged to support the program in part or in whole. Under these conditions the state would find itself supporting a number of specific programs of relatively minor importance and neglecting the prime functions of public health.

The recommended organization structure of the department would provide proper agencies and techniques for overcoming this weakness.

Public Health Education: Little coordinated work is being done in the field of public health education although individual divisions of the department do publicize particular programs. The solution to many problems of public health lies in articulate and informed public opinion. It is the duty of the department of public health to aid in developing informed public opinion by educating the public with respect to matters of public health. While the advisory council can offer valuable assistance in this respect, there is need for central coordination and direction of all public health education. The proposed plan of organization places this function in the proposed division of administration. A position should be established for a qualified public health educator to exercise this function.

* * * * *

Licensing of Maternity Hospitals and Homes: Authority to license maternity hospitals and homes at the present is vested in the children's services division of the department of social welfare. This function could more appropriately be exercised by the division of maternal and child health of the department of health. Transfer of this authority is recommended.

Centralization of Local Public Health Services:

Necessity for Centralization: Matters of public health such as communicable diseases, food control, milk supply, and nursing cannot readily be confined to a particular community. A public health problem, by its very nature, is one that threatens the health of the public at large and is not capable of abatement by individual action. All communities of the state are interdependent where public health is concerned. The most important function of the state is to see that all people receive minimum basic public health services, if not through local government then through state assistance. Centralization of local public health activities offers the only practicable means of providing minimum basic public health services to all people in the state and also offers great potential possibilities for superior local public health services because the size and population distribution in the state make it ideally suitable for centralized administration.

Existing Local Services: At the present time, each of the 39 established communities in Rhode Island has authority to provide local health services within its boundaries. The director of health has the right to approve local health officers, but this power is ineffective. Services actually provided locally range from no service at all to a full-time health department.

Public health authorities consider expenditures of $1 per capita as the amount necessary for minimum basic local health services. Expenditures of $1.50 per capita are necessary for a well rounded public health program. In the fiscal year, 1944, according to figures compiled by the Rhode Island Expenditure Council, expenditures of the city of Providence for health amounted to about $2.10 per capita. Expenditures in four communities, Newport, Pawtucket, Middletown, and Portsmouth, ranged between $.70 and $1 per capita. Six communities, West Warwick, Hopkinton, Gloucester, Little Compton, Foster, and West Greenwich expended nothing for health. The remaining municipalities expended negligible amounts.

Of the total expenditures of Rhode Island municipalities in the fiscal year 1944 for health amounting to $635,409.99, the city of Providence spent $529,944. Excluding the city of Providence the total local expenditures for health amounted to $105,465.99 or about $.22 per capita.

continued on page 316

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HEALTH DEPARTMENT STUDY

concluded from page 314

Except for a few instances, local health officers, in the main, contribute little of material value to public health either for the community or for the state, and much of the money provided for such local service is, for all practical purposes, wasted.

Such local health services as now exist are supplemented by the local district public health units of the department of health. The services now rendered in any particular community, however, differ from the services in any other community depending upon local cooperation, local demand for services, and the availability of funds.

Proposed Centralization of Local Services: Consolidation of all local health services under the direction of the director of health would afford uniform service and service of better quality than is now available, and at considerably less cost than such service could be provided independently by each Rhode Island municipality. There is, however, scant hope of affecting any reduction in the total amounts now expended by both the state and the local governments for local public health services because the present expenditures are so far below the recognized amounts required to provide minimum basic services.

Elimination of local health units may present a difficult problem because of the existence of strong feelings on matters of home rule in the state. Furthermore, in order to maintain the interest of local communities in local public health services, some provision should be made for participation by each community in the cost of the program and in the determination of policies with respect to administration of the program. Participation by local communities in the cost of the program could be done on one of two bases, as follows:

1. Each municipality could be required to contribute $1 per capita, the amount needed to provide minimum basic public health services, and the state would assume any additional cost.
2. The cost could be determined upon in advance and then split evenly between the state and the municipalities, the share of each individual municipality being apportioned according to population.

As for participation in the determination of policies, this could be accomplished through a district council consisting of one non-paid member from each community in the district. Cooperation of state and local societies in general sponsorship of centralization of local public health services might well be solicited to insure success of the program.

There is authority at present for municipalities to combine for local public health services and consolidation of local services could be accomplished right now by voluntary action under forceful leadership. There appears to be some resistance to voluntary consolidation and it is probable that compulsory consolidation would prove more effective in the long run.

* * * * *

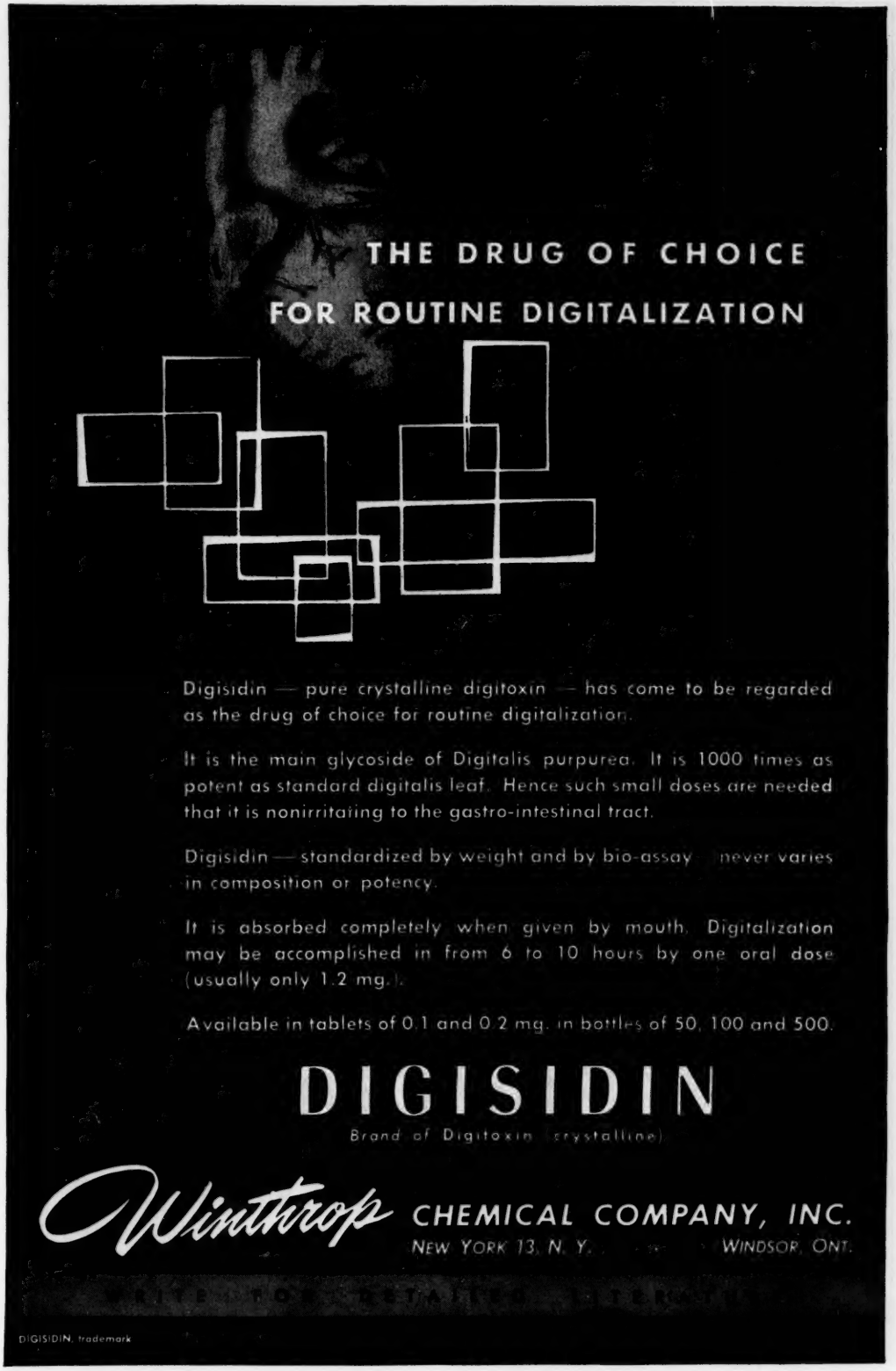
STATE AND LOCAL RELATIONSHIPS

The aspect of government which is attracting most study today is the place of each unit of government in the overall operation. Spheres of influence and activity of national, state, and local governments have of late years so overlapped that the proper distribution of functions and levels of service have completely disappeared. During the past fifteen years the increasing importance of the Federal government in the daily lives caused endless discussion. The reasons for this increasing tendency to control and regulation on the Federal level are many. The severe depression and passage of the Social Security Act placed the Federal government in a position of giving vastly expanded grants in aid for welfare and health services. The war necessitated imposing controls and regulations on activities of all kinds. It is probably that the Federal government today has the most effect of any unit of government on the average citizen.

With the increased centralization of authority in the Federal government, came a like expansion of the State government. Basically, the Federal government dealt with the State rather than the local communities, and the problems which had to be faced were usually state wide in character. That there has been a corresponding decline in local self reliance is evident. The dependence on the larger unit of government for assistance, either financial or otherwise has had the effect in many instances of removing almost entirely the local control necessary for true democratic functioning.

In Rhode Island the tendency towards centralization has been particularly noticeable. Because of its small size, the absence of county governments and its population distribution, the dominance of the state government has had full play. Many functions, normally considered as purely local in character have been taken over almost completely by the state. There have been proposals for the state to take over even more. We believe this tendency should be immediately curtailed. If not, the gradual elimination of local units of government can be foreseen.

—Abstracted from Report of the R. I. Commission to Re-Examine the Field of Governmental Relations.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**Laryngoscope, Feb. 1935, Vol. XLV, No. 2, 149-154; Laryngoscope, Jan. 1937, Vol. XLVII, No. 1, 58-60; Proc. Soc. Exp. Biol. and Med., 1934, 32, 241; N. Y. State Journ. Med., Vol. 35, 6-1-35, No. 11, 590-592.*

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COMMENTS OF COMMISSION

The entire reports of the Griffenhagen & Associates study are filed with this report as an appendix. We believe they represent a blueprint for the guidance of the administration and the legislature in dealing not only with these departments specifically, but with the overall functions of government in general. This Commission does not agree with all the recommendations contained in these reports and so indicates in the body of this report. However, we believe that each recommendation should be carefully studied by all authorities concerned and consideration be given to the proposals made in planning for future operations. It is our opinion that the reports indicate a need for an overall reexamination of each department with a view towards better integration and administration. Such a study, carried out in the detail of these two departments would take some time and require a large staff. However, the scope of the recommendations in these reports indicates such a study would be desirable.

With regard to the specific reports, the Commission makes the following comments, indicative of its feelings on certain phases and recommendations:

We heartily endorse the proposed reorganization of the Department of Health, into seven divisions, in the interests of efficiency and economy.

The recommendation that the position of the Director of Health be a full-time career position under civil service is not in accord with our feeling that the directors of each department should serve as the Governor's cabinet and be responsible to him. We feel that the Governor should have the right to appoint and remove directors, and with this, the right to establish the working conditions and recommend the salary for the position.

With regard to the recommendation to abolish the bureau of recreational safety we are in accord. However, with the realization that this is not a function of the Health Department, goes the feeling that this activity may be a logical function of the State government, and it is our recommendation that either the activity be absorbed into the Division of Forests and Parks and their services expanded, or that the Safety Commission might take over the supervision of this program.

The recommendation that frequent and regular meetings of the staff of the director be held is an eminently sound one. We believe that if this practice were carried on in all departments there would be a better overall administration.

The recommendation for the centralization of all local public health services under the direction and control of the state director of health we disagree with for the reason enumerated in the section of this report dealing with state and local relationships.

The protection of public health is another aspect of governmental service which has tended to become centralized in the State. The expansion of the State Health department made possible by increased grants under the Social Security Act has resulted in a moving in to the local communities to provide health services.

Here again we think the program is better carried out on the local level. The State should maintain a small staff of proficient technicians to serve as advisors to the local units. It should maintain public health and research laboratories. It should provide a strong public health education program. It should encourage cooperation among the local units, but the actual work in the unit should be done and administered by local people. If there is not sufficient work in any community, a mutual banding together in a health district is feasible and desirable.

The whole tendency of allowing the State to take over services should be discontinued. If grants in aid are necessary to provide the services, the State has a precedent for making such grants. Keeping the services on the local level and keeping local interest in the services should result in better and more economical administration. The State's position of advisor, critic and consultant should aid in attaining this desirable goal.

—Abstracted from Report of the R. I. Commission to Re-Examine the Field of Governmental Operations.

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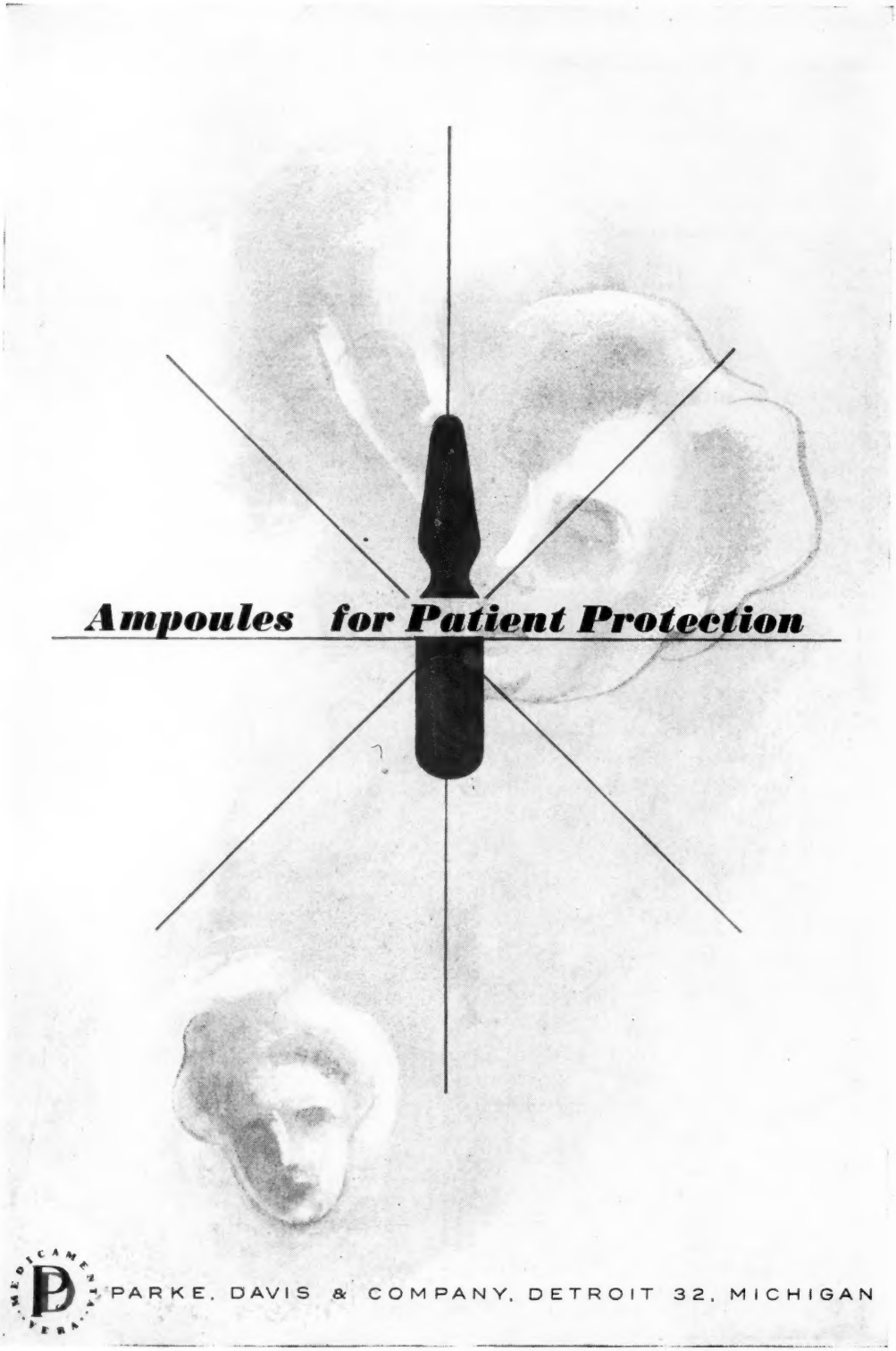
INDEX OF ADVERTISERS

	PAGE
Abbott Laboratories	293
Alkalol Company	288
Ames Company, Inc.	284
E. P. Anthony, Inc.	288
Ar-Ex Cosmetics, Inc.	319
Arlington Chemical	245
Ayerst, McKenna & Harrison	249
Bayview Convalescent Home	274
Blanding & Blanding	242
Borden Company	311
J. E. Brennan & Company	302
George A. Breon	307
Joseph Brown Company	302
Buffington's, Inc.	306
Burroughs, Wellcome & Co.	243, 290
Butterfield Drug Stores	304
Camel	279
S. H. Camp Company	248
Ciba Pharmaceutical Company,	Insert between 246-247; 282, 283
Coca-Cola	294
Crookes Laboratories	Inside front cover
Curran & Burton	288
Davies, Rose & Company, Ltd.	244
Edgewood Secretarial School	250
E. Fougera & Co., Inc.	299
J. E. Hanger, Inc.	301
The Harrower Laboratory	281
H. W. Kinney & Sons	305
Eli Lilly & Company	Insert between 254-255
Mead Johnson	Back cover
Medical Milk Commission	273
Merck & Company Inc.	289
A. B. Munroe Dairy	308
McCaffrey, Inc.	310
Narragansett Brewing Company	321
National Dairy Products Company, Inc.	285
Nutrition Research Laboratories	252, 253
Parke, Davis & Co.	241, 324, 325
Philip Morris & Company	318
Physicians Directory	322, 323
Charles Raymond & Co.	312
J. B. Roerig & Company	309
Schering Corporation	287
G. D. Searle & Company	275
Sharp & Dohme, Inc.	315
Smith-Holden	303
Smith, Kline & French	254, 295
Frederick Stearns	277
Tilden-Thurber	267
U. S. Vitamin Corporation	300
Upjohn	251
Wander Company	246
White Laboratories	Insert between 288-289
Winthrop Chemical Company	317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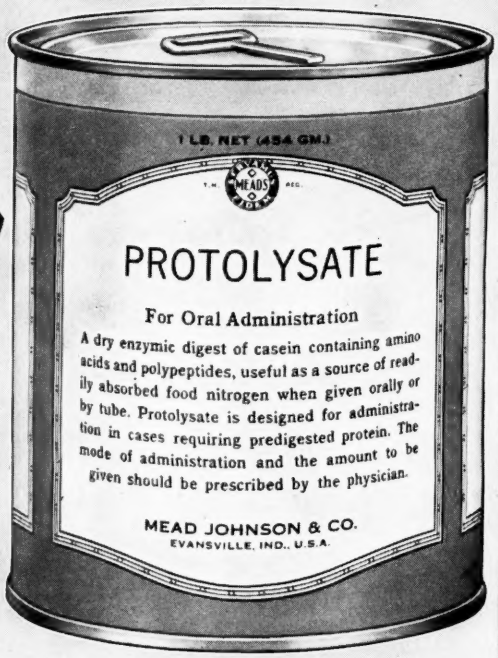
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